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Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation: Annual Report for Calendar Year 1974

B. J. McGuire and E. A. Vadelund

Center for Consumer Product Technology
Institute for Applied Technology
National Bureau of Standards
Washington, D. C. 20234

February 1975

Annual Report for
Calendar Year 1974

Prepared for
U. S. Department of Commerce
Washington, D. C. 20230

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VOLUNTARY LABELING PROGRAM FOR HOUSEHOLD APPLIANCES AND EQUIPMENT TO EFFECT ENERGY CONSERVATION: ANNUAL REPORT FOR CALENDAR YEAR 1974

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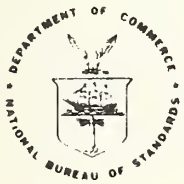


U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS, Richard W. Roberts, Director

Summary

The Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation was established in response to an April 18, 1973, Presidential directive. Final procedures for the program became effective October 26, 1973. Only major energy consuming household appliances and equipment are covered. Purposes of the program are to encourage manufacturers to place energy efficiency labels on their appliances and to encourage consumers to utilize this information in making purchase decisions.

Specifications containing labeling requirements for each type of product are developed by NBS with assistance from consumers, retailers, manufacturers, and interested Federal agencies. During the first full year of program operation, final specifications for labeling room air conditioners and proposed specifications for labeling refrigerators, combination refrigerator-freezers, and freezers were issued. Two consumer information pamphlets were published and other consumer information and education activities were undertaken. Labeling specifications for water heaters, clothes washers and dryers, and ranges and ovens were under development. This was accomplished, with assistance from manufacturers, retailers, consumers, and other agencies, by a staff of six funded at a level of $375,000 per year.

At year's end, twenty-four room air conditioner manufacturers and private brand labelers, representing an estimated 95% of U.S. sales of this appliance, were participating in the program.

Further discussion of program activity is divided into the following topics:

1. Introduction
2. Program Development
3. Room Air Conditioner Labeling Specification
4. Refrigerator, Combination Refrigerator-Freezer, and Freezer Labeling Specifications
5. Water Heater Labeling Specification
6. Other Technical Activities
7. Informational and Educational Activity
8. Government Liaison
9. Program Evaluation
10. Projected Activity

The following exhibits are attached:

A. Program Procedures
B. Proposed Room Air Conditioner Labeling Specification
C. Final Room Air Conditioner Labeling Specification
D. Proposed Refrigerator, Combination Refrigerator-Freezer and Freezer Labeling Specifications
E. Program Brochure
F. Room Air Conditioner Brochure
G. List of Program Participants with Respect to Room Air Conditioners

1. Introduction

The President, in an April 18, 1973, message concerning energy resources, directed that the Department of Commerce, in cooperation with the Council on Environmental Quality and the Environmental Protection Agency, develop a voluntary program for the energy efficiency labeling of household appliances. The present program was developed as a result of that direction.

The purpose of the program is to encourage manufacturers (including private brand labelers) to voluntarily provide consumers with information concerning the energy efficiency or energy consumption of household appliances and equipment, and to encourage consumers to utilize this information in making purchase decisions. The energy information is displayed on labels attached to the appliances or equipment.

Appliances and equipment covered by the program are room air conditioners, refrigerators, combination refrigerator-freezers, freezers, water heaters, clothes washers and dryers, dishwashers, ranges and ovens, and central heating and air conditioning equipment. Other products may be added to this list by amendment of the program procedures.

Under the program, a labeling specification is developed for each type of appliance or equipment covered. Each labeling specification sets out the test methods, the label design and labeling requirements, and requirements for manufacturer participation that relate to the product covered.

A notable feature of the program is that each label used contains not only the efficiency or energy consumption rating for the product to which it is affixed, but also the range of efficiency or energy consumption of all products of a similar size available on the market.

An annual report on the program is required under 9.11 of the program procedures, 15 CFR Part 9.

2. Program Development

Program procedures, developed in response to the President's directive of April 18, 1973, and with the assistance of other Federal agencies and interested parties, were published for public comment in the Federal Register on June 5, 1973 (38 FR 14756). Comments were received from thirty sources including representatives of consumer, retailer, and manufacturer groups. The comments were analyzed, the procedures revised, and final procedures for the Voluntary Program for Household Appliances and Equipment to Effect Energy Conservation, 15 CFR Part 9, were published and became effective on October 26, 1973 (38 FR 29574) (Exhibit A). A copy of the analysis of comments is available for public inspection at the Central Reference and Records Inspection Facility of the Department of Commerce, Room 7043, Main Commerce Building, 14th Street between E Street and Constitution Avenue N.W., Washington, D.C. 20230.

To serve as a focal point for Department of Commerce activity required by the procedures, a group funded at about $375,000 per year was established within the Center for Consumer Product Technology of the National Bureau of Standards. This group, which later became the Appliance Labeling Section, develops procedures and specifications, evaluates and develops standards and test methods, prepares consumer information material, and monitors manufacturers' participation in the program. At the end of 1974 the group consisted of five engineers and one public affairs specialist. Consultants were employed for some activities.

Priorities and milestones for program activity were established based on estimates of the potential for energy savings for the various products and the ease with which the savings could be obtained. The major milestones set are the target dates for publication in the Federal Register of proposed labeling specifications for the products covered. These are as follows:

Room Air Conditioners	January 1974
Refrigerators, Combination Refrigerator-Freezers and Freezers	September 1974

Water Heaters	February 1975
Clothes Washers and Dryers	June 1975
Dishwashers	August 1975
Ranges and Ovens	February 1976
Central Air Conditioning Equipment	March 1976
Central Heating Equipment	April 1976

Programs were established for consumer information and for liaison with states active in the appliance labeling and appliance efficiency regulating areas.

A Department of Commerce Energy Conservation Mark to be shown on all labels used under the program was designed and is being registered with the U.S. Patent Office.

A brochure describing the program was published and is available to interested persons (Exhibit E).

3. Room Air Conditioner Labeling Specification

Standards and literature related to room air conditioner efficiency, sizing, and use were surveyed. A series of meetings were held with representatives of consumer, merchandiser, and manufacturer groups and with interested Federal agencies to discuss problems related to room air conditioner labeling. Assistance was also received from the NBS Technical Analysis Division, which made several consumer surveys to evaluate the effectiveness of various rating schemes, and from an outside consultant who designed the various labels considered.

It was determined that the efficiency of room air conditioners should be stated in terms of an Energy Efficiency Ratio (EER) obtained by dividing the cooling capacity in Btu per hour by the power requirement in Watts. It was also determined that correct room air conditioner sizing was important to efficient operation, and that the wide variation in individual use of these appliances made it impractical to attempt to establish a typical annual operating cost for them. However, information on a method for computing cost of operation was included in a brochure. The problem of correct individual selection of room air conditioners was found to be too complex to describe on a label, and so was also discussed in the brochure (Exhibit F).

A proposed labeling specification for room air conditioners was written and published for public comment in the Federal Register January 31, 1974 (39 FR 3982) (Exhibit B). Comments were received from sixteen sources including representatives of consumer, retailer, and manufacturer groups. The comments were analyzed, the specification revised, and Voluntary Energy Conservation Specification No. 1-74, for Room Air Conditioners, was published and became effective May 1, 1974 (39 FR 15196) (Exhibit C). A copy of the analysis of comments is available for public inspection at the Central Reference and Records Inspection Facility.

The EER range values used on room air conditioner labels are obtained from manufacturers through the Association of Home Appliance Manufacturers (AHAM) and published in Appendix A of the room air conditioner labeling specification. The values are updated annually. The brochure (Exhibit F) referred to on room air conditioner labels may be obtained by consumers from NBS or from the GSA Consumer Information Center in Pueblo, Colorado.

Twenty-four manufacturers representing an estimated 95% of room air conditioner sales in the U.S. are participating in the Energy Conservation Labeling Program (Exhibit G).

4. Refrigerator, Combination Refrigerator-Freezer, and Freezer Labeling Specifications

Development of labeling specifications for refrigerators, combination refrigerator-freezers, and freezers followed the pattern set in development of the room air conditioner labeling specification. A series of meetingswere held with consumer, merchandiser, manufacturer and Federal agency representatives. It was found that because all manufacturers of refrigerators, combination refrigerator-freezers, and freezers do not belong to any one trade association, performance data for all models of these appliances are not available on a common basis.

Some available data suggested that a test of these appliances at a 90°F ambient temperature and with no door openings would produce an energy consumption approximately equivalent to that produced in average home use. To check the correlation, NBS purchased and tested five freezers and

combination refrigerator-freezers under the suggested test conditions and under simulated home use conditions. In addition, the energy usage of twenty-four of these appliances was measured in actual home use. The test results indicated that the energy use relationship, with some adjustment, was sufficiently accurate for use in the program.

It was determined that individual use of refrigerators, combination refrigerator-freezers, and freezers did not vary so greatly that it precluded use of typical monthly operating costs on labels. In addition, results of an extensive survey performed by a consulting organization indicated that the public preferred labels showing energy consumption and monthly cost of operation for these appliances.

Proposed specifications for labeling refrigerators, combination refrigerator-freezers, and freezers were written and nearly ready for publication for public comment by September 30, 1974. However, one aspect of the specified test method, concerning the effect of anti-sweat heaters on the energy consumption ratings of combination refrigerator-freezers, required further study. Publication of the specifications was delayed until the problem had been resolved. The specifications were published for public comment on December 31, 1974 (39 FR 45334) (Exhibit D).

Actual ranges of energy consumption and operating cost for refrigerators, combination refrigerator-freezers, and freezers were not available when the proposed specifications were published. The ranges, which are expected to become available in April 1975, will be published separately for comment before the final labeling specifications are published.

A brochure on the selection and use of refrigerators, combination refrigerator-freezers, and freezers is being prepared and will be published when the final labeling specifications for these appliances have been completed.

5. Water Heater Labeling Specification

Standards and available literature related to water heater use and efficiency were surveyed, and a series of meetings were held with representatives of consumer, retailer, and manufacturer groups to discuss water heater labeling problems.

Because of the scarcity of easily available data on hot water use in residences, a survey was made of 50 gas and 50 electrical utility companies to obtain data. Some useful information was provided by the companies.

In development of the water heater labeling specification there are problems associated with correct sizing and with the fact that the use of different energy sources must be compared. Also, the existing standard test methods for gas-fired and electric water heaters are different, but are being revised and brought into agreement by the appropriate standards writing groups. It appears that the proposed labeling specification for water heaters will be completed as scheduled in February 1975, but actual efficiency ranges will not be available for publication with the proposed specification.

6. Other Technical Activities

The work of reviewing standards and literature and meeting with interested groups is underway for clothes washers and dryers, and for ranges and ovens. These are difficult appliances to label because of differences in individual use patterns, the difficulty of describing the "output" in an easily understandable way, and the fact that they use a variety of fuels. Probable label content has not yet been determined for these appliances.

To gain a better understanding of the actual use of appliances in residences, the NBS Appliance Labeling Section is cooperating with the NBS Center for Building Technology in an instrumented survey of a small sample of homes in Twin Rivers, New Jersey. The location was chosen in part because otherwise identical residences having electric and gas/electric energy sources have been built there.

7. Informational and Educational Activity

The issuance of press releases intended for the general and trade press was coordinated with the NBS Office of Information Activities. Press releases accompanied publication of each proposed and final procedure and specification, and in addition the program was covered in a Secretarial press conference on energy. Press coverage has been good, and photographs of the final room air conditioner label appeared in many newspapers, including one in Sweden.

A program brochure (Exhibit E) and a room air conditioner brochure (Exhibit F) were published and a total of more than 100,000 copies of them was distributed. Distribution channels included the General Services Administration Consumer Information Center, the U.S. Department of Agriculture Extension Service, and Department of Commerce Field Offices. The room air conditioner brochure was translated into Spanish but has not yet been printed in that edition. A draft brochure on water heaters was prepared and is being further developed.

A slide-tape program primarily describing room air conditioner labeling was prepared and will be distributed to consumer groups through the USDA Extension Service during the spring-summer sales period for these appliances. Slide-tape presentations covering other appliances are planned.

Radio and television spot announcements to be broadcast on a public service basis are in preparation.

8. Government Liaison

A close relationship was maintained with the Council on Environmental Quality and the Environmental Protection Agency, as set forth in the Presidential directive authorizing the program. Close working relationships were also developed with the Federal Energy Administration, Office of Consumer Affairs, Federal Trade Commission, and General Services Administration. These agencies contributed significantly to the development of the program.

State and local legislative and regulatory activity related to appliance labeling and appliance efficiency was monitored. To promote uniformity of appliance energy requirements, state and local governments were encouraged to use and promote the Department of Commerce program in lieu of developing their own programs. As part of this effort, legislative and regulatory proposals from eight jurisdictions were analyzed during the year.

Informational copies of program procedures and labeling specifications were sent to all Governors and to the appropriate energy official in each state. This information was also sent to U.S. Senators and Representatives on energy related committees.

9. Program Evaluation

The first year of program operation was a period of program and staff development. Manufacturer response to the program was enthusiastic and the results of consumer surveys indicated that the manufacturers' use of the labels should benefit consumers.

The room air conditioner labeling specification was not developed quickly enough to be available at the time manufacture of 1974 model room air conditioners started in late summer of 1973. A few manufacturers sent labels to retailers for use on display models during the 1974 selling season. A significant number of room air conditioners should have program labels during the 1975 selling season, because an estimated 95% of room air conditioners now being produced in the U.S. are being labeled.

A comparison of room air conditioner EER ranges being prepared for publication in January 1975 with ranges established in January 1974 indicates that the average EER of all available 115-volt room air conditioner window models increased 6.5 percent during the year. This may be in part a response by manufacturers to the spirit of this energy conservation program.

Consumer response to the program, as indicated by the remarks of consumer representatives at meetings, consumer responses to published specifications, and requests for program brochures, is clearly encouraging.

10. Projected Activity

Program milestones for publication of proposed labeling specifications are as indicated in Section 2 of this report. In each case, publication of a final labeling specification is expected about three to four months after publication of the proposed labeling specification, depending on the availability of efficiency range data.

For each final specification issued, the efficiency, energy consumption, or cost of operation ranges published with it will be updated annually.

It is planned to add television receivers to the list of products included in the program.

The President, in his January 15, 1975, State of the Union Message, proposed that this program be made mandatory. An administration bill, S.594, was subsequently submitted to Congress to accomplish this purpose. Passage of this bill could substantially strengthen the Appliance Labeling Program.

In the same January 15, 1975, message, the President also called for the establishment of a Voluntary Appliance Efficiency Program. This program, which complements the Appliance Labeling Program, is being initiated by the Appliance Labeling Section staff. The new program is based on manufacturers' voluntary efforts to reduce by an average of twenty percent the energy usage of new appliances relative to their output. This goal is to be achieved by 1980, and it is estimated that reaching the goal will result in the saving of the energy equivalent of half a million barrels of oil per day by 1985.

The results of the President's initiatives in the appliance efficiency area will be discussed in the next report.

U.S. DEPARTMENT OF COMMERCE

OFFICE OF THE SECRETARY

Reprinted from Federal Register, Volume 38, Number 206—October 26, 1973

Title 15—COMMERCE AND FOREIGN TRADE

SUBTITLE A—OFFICE OF THE SECRETARY OF COMMERCE

PART 9—PROCEDURES FOR A VOLUNTARY LABELING PROGRAM FOR HOUSEHOLD APPLIANCES AND EQUIPMENT TO EFFECT ENERGY CONSERVATION

By notice published in the FEDERAL REGISTER of June 5, 1973 (38 FR 14756), the Department of Commerce announced its intention of issuing its Procedures for a Voluntary Labeling Program for Major Household Appliances to Effect Energy Conservation. Proposed procedures were published in the same FEDERAL REGISTER notice, and interested parties were afforded an opportunity to file written comments or suggestions.

Comments in response to the above referenced publication of the proposed procedures were received from thirty sources and were reviewed and analyzed within the Department. A detailed analysis of the comments received has been prepared, and a copy of this analysis is filed in the Central Reference and Records Inspection Facility, Room 7043, Commerce Building, 14th Street between Constitution Avenue and E Street NW., Washington, D.C. 20230, and is available for public inspection at that location. Most comments received recognized the need for a program to effect energy conservation in the use of household appliances and equipment and expressed their general willingness to support the proposed program. In cooperation with the Council on Environmental Quality and the Environmental Protection Agency, appropriate modifications in the text of the proposed procedures have been made based on the review and analysis of the comments received. Based on these actions, the final procedures, as set forth below, are hereby issued as Part 9 of Title 15, Code of Federal Regulations.

Effective date.—These procedures shall become effective on October 26, 1973.

Issued October 24, 1973.

BETSY ANCKER-JOHNSON,
Assistant Secretary for Science and Technology.

Sec.

9.0 Purpose.
9.1 Goal of program.
9.2 Definitions.
9.3 Appliances and equipment included in program.
9.4 Development of voluntary energy conservation specifications.
9.5 Participation of manufacturers.
9.6 Termination of participation.
9.7 Department of Commerce energy conservation mark.
9.8 Amendment or revision of voluntary energy conservation specifications.
9.9 Consumer education.
9.10 Coordination with State and local programs.
9.11 Annual report.

AUTHORITY.—Sec. 2, 31 Stat. 1449, as amended, sec. 1, 64 Stat. 371; 15 U.S.C. 272, Reorganization Plan No. 3 of 1946, Part VI; Message from the President of the United States Concerning Energy Resources, April 18, 1973 (119 Cong. Rec. H2886).

§ 9.0 Purpose.

The purpose of this part is to establish procedures relating to the Department's voluntary labeling program for household appliances and equipment to promote and effect energy conservation.

§ 9.1 Goal of program.

(a) This program was initiated in response to the direction of President Nixon in his 1973 Energy Message that the Department of Commerce in cooperation with the Council on Environmental Quality and the Environmental Protection Agency develop a voluntary labeling program which would apply to energy-consuming home appliances.

(b) The goal of this program is to encourage manufacturers to provide consumers, at the point of sale, with information on the energy consumption and energy efficiency of household appliances and equipment. Such information, presented in a uniform manner readily understandable to consumers, would be displayed on Labels attached to or otherwise provided with the appliances or equipment. The Labels will include a system intended to make it possible for consumers to compare by cost or otherwise the energy consumption and energy efficiency characteristics when purchasing household appliances and equipment and to select those that can effect savings in energy consumption.

§ 9.2 Definitions.

(a) The term "Secretary" means the Secretary of Commerce.

(b) The term "manufacturer" means any person engaged in the manufacturing or assembling of new appliances or equipment or in the importing of such products for resale.

(c) The term "energy consumption" means the energy resources used by appliances or equipment under conditions of use approximating actual operating conditions insofar as practical as determined through test procedures contained or identified in a final Voluntary Energy Conservation Specification published under § 9.4(e).

(d) The term "energy efficiency" means the energy use of appliances or equipment relative to their output of services, as determined through test procedures contained or identified in a final Voluntary Energy Conservation Specification published under § 9.4(e).

(e) The term "consumer" means the first person who purchases a new appliance or item of equipment for purposes other than resale.

(f) The term "class of appliance or equipment" means a group of appliances or equipment whose functions or features are similar, and whose functional output covers a range that may be of interest to consumers.

(g) The term "Specification" means a Voluntary Energy Conservation Specification developed under § 9.4.

(h) The term "Label" means printed matter affixed to or otherwise provided with appliances or equipment and meeting all the requirements called for in a Voluntary Energy Conservation Specification published under § 9.4(e).

§ 9.3 Appliances and equipment included in program.

The appliances and equipment included in this program are room and central air conditioners, household refrigerators, home freezers, clothes washers, dishwashers, clothes dryers, kitchen ranges and ovens, water heaters, and comfort heating equipment. Additional appliances and equipment may be included in the program by the Secretary pursuant to rule making procedures as set out in 5 U.S.C. 553. Individual units of appliances and equipment manufactured for export are not included in this program.

§ 9.4 Development of voluntary energy conservation specifications.

(a) The Secretary in cooperation with appropriate Federal agencies and in cooperation with affected manufacturers, distributors, retailers, consumers, environmentalists, and other interested parties shall develop proposed Specifications for the specific classes of appliances and equipment covered under § 9.3.

(b) Each Specification shall as a minimum include:

(1) A description of the class of appliance or equipment covered by the Specification, listing the distribution of energy efficiencies for that class of appliance or equipment.

(2) Listings or descriptions of test methods to be used in measuring the energy consumption and/or energy efficiency characteristics of the class of appliance or equipment.

(3) A prototype Label and directions for displaying the Label on or with appliances or equipment of that class. The Label shall be prominent, readable, and visible and shall include information that will assist the consumer in comparing by cost or otherwise the energy consumption and/or energy efficiency

characteristics of a particular appliance or item of equipment with all others in its class. The Label shall also include the Department of Commerce Energy Conservation Mark specified in § 9.7.

(4) Conditions for the participation of manufacturers in the program.

(c) The test methods listed or described in the Specification pursuant to § 9.4(b)(ii) shall be those described in existing nationally-recognized voluntary standards where such methods are appropriate. Where appropriate test methods do not so exist, they will be developed by the Department of Commerce in cooperation with interested parties.

(d) The Secretary upon development of a proposed Specification shall publish in the FEDERAL REGISTER a notice giving the complete text of the proposed Specification, and any other pertinent information, and inviting any interested person to submit written comments on the proposed Specification within 30 days after its publication in the FEDERAL REGISTER, unless another time limit is provided by the Secretary. Interested persons wanting to express their views in an informal hearing may do so if, within 15 days after the proposed Specification is published in the FEDERAL REGISTER, they request the Secretary to hold a hearing. Such informal hearings shall be held so as to give all interested persons opportunity for the oral presentation of data, views, or arguments in addition to the opportunity to make written submissions. Notice of such hearings shall be published in the FEDERAL REGISTER. A transcript shall be kept of any oral presentations.

(e) The Secretary, after consideration of all written and oral comments and other materials received in accordance with paragraph (d) of this section, shall publish in the FEDERAL REGISTER within 30 days after the final date for receipt of comments, or as soon as practicable thereafter, a notice either:

(1) Giving the complete text of a final Specification, including conditions of use, and stating that any manufacturer of appliances or equipment in the class concerned desiring voluntarily to use the Label and Energy Conservation Mark with such appliances or equipment must advise the Department of Commerce; or

(2) Stating that the proposed Specification will be further developed before final publication; or

(3) Withdrawing the proposed Specification from further consideration.

§ 9.5 Participation of manufacturers.

(a) Manufacturers desiring to participate in this program will so notify the Department of Commerce. The notification will identify the particular Specification to be used and the manufacturer's model numbers for the products to be labeled. The notification will also state that the manufacturer will abide by all conditions contained in the Specification and will desist from using the Label and Energy Conservation Mark if requested by the Department of Commerce under the provisions of § 9.6.

(b) The conditions for participation will be set out in the Specification and will include, but not be limited to, the following:

(1) Prior to the use of a Label the manufacturer will make or have made the measurements to obtain the information required for inclusion on the Label and, if requested, will forward within 30 days such measurement data to the Department of Commerce. Such measurement data will be kept on file by the manufacturer or his agent for two years after that model of appliance or equipment is no longer manufactured unless otherwise provided in the Specification. The use of independent test laboratories or national certification programs available to any manufacturer is acceptable for the purposes of this program.

(2) The manufacturer will describe the test results on the Label as prescribed in the Specification.

(3) The manufacturer will display or arrange to display, in accordance with the appropriate Specification, the Label on or with each individual unit of appliance or equipment within the subject class and with the same brand name manufactured by him except for units exported from the U.S. All models with the same brand name that fall within the class must be included in the program unless they are for export only.

(4) The manufacturer agrees at his expense to comply with any reasonable request of the Department of Commerce to have appliances or equipment manufactured by him tested to determine that testing has been done according to the relevant Specification.

(5) Manufacturers may reproduce the Department of Commerce Labels and Energy Conservation Mark in advertising provided that the entire Label, complete with all information required to be displayed at the point of retail sale, is shown legibly.

§ 9.6 Termination of participation.

(a) The Department of Commerce upon finding that a manufacturer is not complying with the conditions of participation set out in these procedures or in a Specification may terminate upon 30 days notice the manufacturer's participation in the program: *Provided*, That the manufacturer shall first be given an opportunity to show cause why the participation should not be terminated. Upon receipt of a notice of termination, a manufacturer may request within 30 days a hearing under the provisions of 5 U.S.C. 558.

(b) A manufacturer may at any time terminate his participation and responsibilities under this program with regard to a specific class of products by giving written notice to the Secretary that he has discontinued use of the Label and Energy Conservation Mark for all appliances or equipment within that class.

§ 9.7 Department of Commerce energy conservation mark.

The Department of Commerce shall develop an Energy Conservation Mark which shall be registered in the U.S. Patent Office under 15 U.S.C. 1054 for use on each Label described in a Specification.

§ 9.8 Amendment or revision of voluntary energy conservation specifications.

The Secretary may by order amend or revise any Specification published under § 9.4. The procedure applicable to the establishment of a Specification under § 9.4 shall be followed in amending or revising such Specification. Such amendment or revision shall not apply to appliances or equipment manufactured prior to the effective date of the amendment or revision.

§ 9.9 Consumer education.

The Department of Commerce, in close cooperation and coordination with interested Government agencies, appropriate industry trade associations and industry members, and interested consumers and environmentalists shall carry out a program to educate consumers relative to the significance of the labeling program. Some elements of this program shall also be directed toward informing retailers and other interested groups about the program.

§ 9.10 Coordination with State and local programs.

The Department of Commerce will establish and maintain an active program of communication with appropriate state and local government offices and agencies and will furnish and make available information and assistance that will promote to the greatest practicable extent uniformity in state, local, and Federal programs for the labeling of household appliances and equipment to effect energy conservation.

§ 9.11 Annual report.

The Secretary will prepare an annual report of activities under the program, including an evaluation of the program and a list of participating manufacturers and classes of appliances and equipment.

[FR Doc.73-22882 Filed 10-25-73;8:45 am]

U.S. DEPARTMENT OF COMMERCE

OFFICE OF THE SECRETARY

Reprinted from Federal Register, Volume 39, Number 22—January 31, 1974

Office of the Secretary

ROOM AIR CONDITIONERS

Voluntary Energy Conservation; Testing and Labeling

Notice is hereby given that the Department of Commerce proposes to issue a Voluntary Energy Conservation Specification in accordance with § 9.4 of the Procedures for a Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation, 15 CFR Part 9, The proposed Specification describes procedures for testing and labeling room air conditioners in compliance with the above mentioned procedures, and contains instructions for participation by manufacturers in the Voluntary Labeling Program with regard to that product.

Interested persons are invited to participate in development of a final specification covering room air conditioners by submitting written comments or suggestions in four copies to the Assistant Secretary for Science and Technology, U.S. Department of Commerce, Room 3862, Washington, D.C. 20230, on or before March 4, 1974. Interested persons desiring to express their views in an informal hearing may do so if, on or before February 15, 1974, they submit a request to the Assistant Secretary for Science and Technology that such a hearing be held.

A public docket of correspondence and transcripts of hearings will be available for examination by interested persons at the Central Reference and Records Inspection Facility of the Department of Commerce, Room 7043, Main Commerce Building, 14th Street between E Street and Constitution Avenue NW., Washington, D.C. 20230.

BETSY ANCKER-JOHNSON,
Assistant Secretary for Science and Technology.

The following is the proposed specification under consideration for room air conditioners:

VOLUNTARY ENERGY CONSERVATION SPECIFICATION NO. 1–74, FOR ROOM AIR CONDITIONERS

Sec.

1.0 Purpose.
2.0 Scope.
3.0 Definitions.
4.0 Product Testing and Rating.
5.0 Product Labeling.
6.0 Participation in Program.
7.0 Termination of Participation.
8.0 Amendment.
Appendix A—Range of EER Values.

1.0 *Purpose.* The purpose of this Specification is to establish procedures for testing and labeling room air conditioners in compliance with Procedures for a Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation (15 CFR Part 9) and to define requirements for participation by manufacturers in the Voluntary Labeling Program with regard to that product class.

2.0 *Scope.* 2.1 This Specification shall apply to the product class consisting of all room air conditioners as defined in 3.4.

2.2 Room air conditioners covered by this Specification shall be rated with respect to the following energy use characteristics:

2.2.1 Electrical power requirement as described in 4.3.1.

2.2.2 Cooling capacity as described in 4.3.2.

2.2.3 Energy Efficiency Ratio (EER) as described in 4.3.3.

2.3 The present range of Energy Efficiency Ratios of all room air conditioners is as listed in Appendix A. This appendix shall be updated and published in the FEDERAL REGISTER on an annual basis starting in January 1975. Copies of the updated appendix shall be provided by the Secretary to any interested party upon request.

3.0 *Definitions.* 3.1 The term "Secretary" means the Secretary of Commerce.

3.2 The term "manufacturer" means any person engaged in the manufacturing or assembling of room air conditioners or in the importing of such products for resale.

3.3 The term "Procedures" means Procedures for a Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation, 15 CFR Part 9.

3.4 The term "room air conditioner" means an encased assembly designed as a unit primarily for mounting in a window or through a wall for the purpose of providing free delivery of conditioned air to an enclosed space. It includes a prime source of refrigeration and means for circulating and cleaning air and may include means for ventilating and heating.

3.5 The term "basic model" means all room air conditioners having the identical compressor capacity, wattage and amperage ratings, coil configuration and size, air flow, and Btu per hour rating. Versions of a basic model may differ in details that do not affect performance as measured by the methods described in 4.1. Acceptable variations include, but are not limited to, differences in trim, color, mounting method, sales model number, and brand name.

3.6 The term, "cooling capacity range" as used in this Specification means all inclusive Btu per hour values on a single line of the EER comparison chart in Appendix A.

4.0 *Product Testing and Rating.* 4.1 Samples of room air conditioners shall be tested by manufacturers or their agents for cooling capacity and electrical power requirement in accordance with the following standards:

4.1.1 American National Standard Z 234.1—1972, Room Air Conditioners, Sections 4, 5, 6.1 and 6.5.

4.1.2 ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) Standard 16–69, Method of Testing for Rating Room Air Conditioners.

4.2 Samples of room air conditioners shall be tested by manufacturers or their agents in accordance with the following requirements:

4.2.1 Unless otherwise required by the Secretary or his delegee, test results obtained in the testing of one version of a basic model of room air conditioner may be accepted as applicable to all versions of that basic model.

4.2.2 Sufficient units of each basic model of room air conditioner, built under factory production conditions with the equivalent of production tooling, shall be tested according to the methods and conditions specified in 4.1 to provide a valid basis for determining ratings. Results of tests and calculations shall be retained as required under 6.4.

4.2.3 Manufacturers shall maintain such quality control programs, to include testing, as are necessary to insure that the performance of manufactured units is within the tolerances specified in 4.4. The use of national certification programs that are open to all manufacturers and that pertain to the performance characteristics listed on the label as a means for determining the performance level of room air conditioners is acceptable.

4.2.4 In addition to the testing required under 4.2.2 and 4.2.3, when requested by the Secretary or his delegee, one or more units of any specified basic model or any specified version of a basic model, selected at random from among recent production units, shall be tested according to the methods and conditions specified in 4.1. The resulting test data and rating calculations shall be provided to the Secretary or his delegee within 30 days of receipt by the manufacturer of such a request.

4.3 Ratings for use on labels of room air conditioners shall be as follows:

4.3.1 Electrical power requirement shall be expressed in watts and shall equal the numerical result of the electrical power test called for in 4.1 rounded to the nearest 5 watts, or 10 watts for units over 1,400 watts.

4.3.2 Cooling capacity shall be expressed in Btu per hour and shall equal the numerical result of the cooling capacity test called for in 4.1 rounded to the nearest 50 Btu per hour.

4.3.3 Energy Efficiency Ratio (EER) shall be expressed without units and shall be equal to the measured cooling

capacity in Btu per hour divided by the measured electrical power requirement in watts, rounded to the nearest 0.1.

4.4 For room air conditioners tested under 4.2.3 or 4.2.4, the label designed for each specific model shall be held to be in accordance with the requirements of this Specification only if the ratings based on the results of such tests fall within the following limits:

4.4.1 The value for electrical power requirement shall not be greater than 108 percent of the value shown on the label.

4.4.2 The value for cooling capacity shall not be less than 95 percent of the value shown on the label.

4.4.3 Energy Efficiency Ratio (EER) shall not be less than 95 percent of the value shown on the label.

4.5 Energy Efficiency Ratio (EER) range values for use on room air conditioner labels shall be as follows:

4.5.1 Except under the conditions described in 4.5.3, the EER range values shown on a label shall be taken from the appropriate voltage rating column of the version of Appendix A current at the time the label is first used, and such values shall be updated to reflect pertinent changes within 60 days of publication of subsequent revisions of Appendix A in the FEDERAL REGISTER.

4.5.2 The EER ranges indicated on a label shall include the EER range for the cooling capacity range of the model being labeled, the EER range for the cooling capacity range one line lower, if any, and the EER range for the cooling capacity range one line higher, if any.

4.5.3 Any manufacturer who produces a new model room air conditioner having an EER not within the EER range for its cooling capacity range shall, on the label for that model, extend its indicated EER range to include the EER value for that model.

5.0 *Product labeling.* 5.1 The design of labels for room air conditioners shall be as follows:

5.1.1 Except as provided in 5.1.3, the size, content, and design of labels shall be as indicated in Figure 1. No other marks or information shall be placed within the border of labels except in the area specifically designated as being reserved for ratings, model numbers, or the seal, logo, or other designation of the certifier of rating accuracy.

5.1.2 When two or more models of room air conditioners having the same brand name have identical ratings, more than one model number may be shown on the label. The length of the label may be increased to accommodate such additional model number listings.

5.1.3 Camera-ready art suitable for printing the labels, but not including numerical ratings, model numbers, or the seal, logo, or other designation of the certifying agency, shall be provided by the Secretary to any interested party upon request. Actual labels shall be accurate reproductions of this art.

5.1.4 Legible reproductions of entire labels in any size may be used on packaging, display material, or in advertising, but such use shall not be a substitute for the required labeling except as provided in 5.1.5.

5.1.5 Larger adaptations of the design shown in Figure 1 may, if approved by the Secretary or his delegee, be used as point-of-purchase displays in lieu of labels affixed to individual air conditioner units, but this practice shall apply only under the conditions stated in 5.2.4.

5.2 Room air conditioners shall be labeled by manufacturers as follows:

5.2.1 Labels shall be affixed to or hung as a tag on the front or "room" side of each unit in a conspicuous location where they may be viewed clearly by prospective purchasers. Labels are not intended to be permanent and may be affixed so as to be easily removed by a purchaser.

5.2.2 Labels shall appear clearly distinct from any other information supplied or displayed by the manufacturer so that the Department of Commerce Energy Conservation Mark on the label cannot reasonably be associated with such other information.

5.2.3 If a given brand of room air conditioner is labeled, then all units of all models of room air conditioners bearing the same brand name shall be labeled, except that this requirement shall not apply to units intended for export or units manufactured and packaged prior to a manufacturer's entry into this program.

5.2.4 For individual room air conditioner units manufactured and packaged prior to a manufacturer's entry into this program, manufacturers may distribute labels to retailers to be placed on floor display models or other models and/or may provide point-of-purchase displays as described in 5.1.5, in lieu of individually labeling each unit as called for under 5.2.3. The manufacturer assumes no responsibility for assuring individual label attachment or point-of-purchase displays at retail outlets under terms of this section.

5.3 For room air conditioners listed by manufacturers in sales catalogs, the listings shall be accompanied by the following information:

5.3.1 The model number and rated voltage, cooling capacity, power requirement, current, and EER as shown on the label shall be stated for each model listed. This information may be provided in the form of one or more tables.

5.3.2 The range of EERs for room air conditioners in the same cooling capacity ranges as the listed models shall be indicated by means of one or more tables. The EER ranges shown for each cooling capacity range shall be determined by the procedures described in 4.5.

5.3.3 Explanatory material concerning the meaning and importance of EER and referring to the U.S. Department of Commerce booklet, "Room Air Conditioner Efficiency", and a reproduction of the U.S. Department of Commerce Energy Conservation Mark shall be shown in at least one location in close proximity to the room air conditioner listings.

6.0 *Participation in program.* 6.1 Manufacturers wishing to participate in the Voluntary Labeling Program for Household Appliances and Equipment with regard to room air conditioners shall notify the Secretary of their intent. Unless otherwise ruled by the Secretary, approval for participation by any manufacturer is automatically granted upon notification of the Secretary, provided that the conditions for participation as set forth in the Procedures and in this Specification are observed.

6.2 A manufacturer's notice of participation shall includes the following information:

6.2.1 A statement that the tests and calculations called for under 4.0 will be completed as required and that the manufacturer certifies the accuracy, within the tolerances prescribed under 4.4, of ratings that will be listed on labels.

6.2.2 A listing of all room air conditioner models to be labeled including an indication of the grouping of sales models into basic models. All models of any single brand name must be included as specified in 5.2.3.

6.2.3 The effective date of the manufacturer's entry into the program.

6.3 When a manufacturer's listing of room air conditioner models to be labeled as required under 6.2.2 is changed by the addition or deletion of models or changes in model designations, the manufacturer shall notify the Secretary or his delegee of such changes.

6.4 Manufacturers or their agents shall maintain files of test results and calculations on which ratings are based. Data relating to a given model shall be preserved for a period of two years after production of that model has been terminated, and if requested shall be provided to the Secretary or his delegee within 30 days.

7.0 *Termination of participation.* 7.1 A manufacturer may at any time terminate his participation and responsibilities under the program with respect to room air conditioners of a given brand name by giving written notice to the Secretary that he has discontinued use of the labels on all room air conditioners of that brand.

7.2 The Department of Commerce upon finding that a manufacturer is not complying with the conditions for participation set forth in this Specification and in the Procedures may terminate upon 30 days notice the manufacturer's participation in the program: ***Provided,*** that the manufacturer shall first be given an opportunity to show cause why the participation should not be terminated.

7.3 Upon receipt of a notice of termination a manufacturer may within 30 days request a hearing under the provisions of 5 U.S.C. 58.

8.0 *Amendment.* This Specification is subject to amendment as provided in Section 9.3 of the Procedures, except that Appendix A of the Specification may be updated and published in the FEDERAL REGISTER annually as described in 2.3 without first publishing notice of the proposed change in the FEDERAL REGISTER.

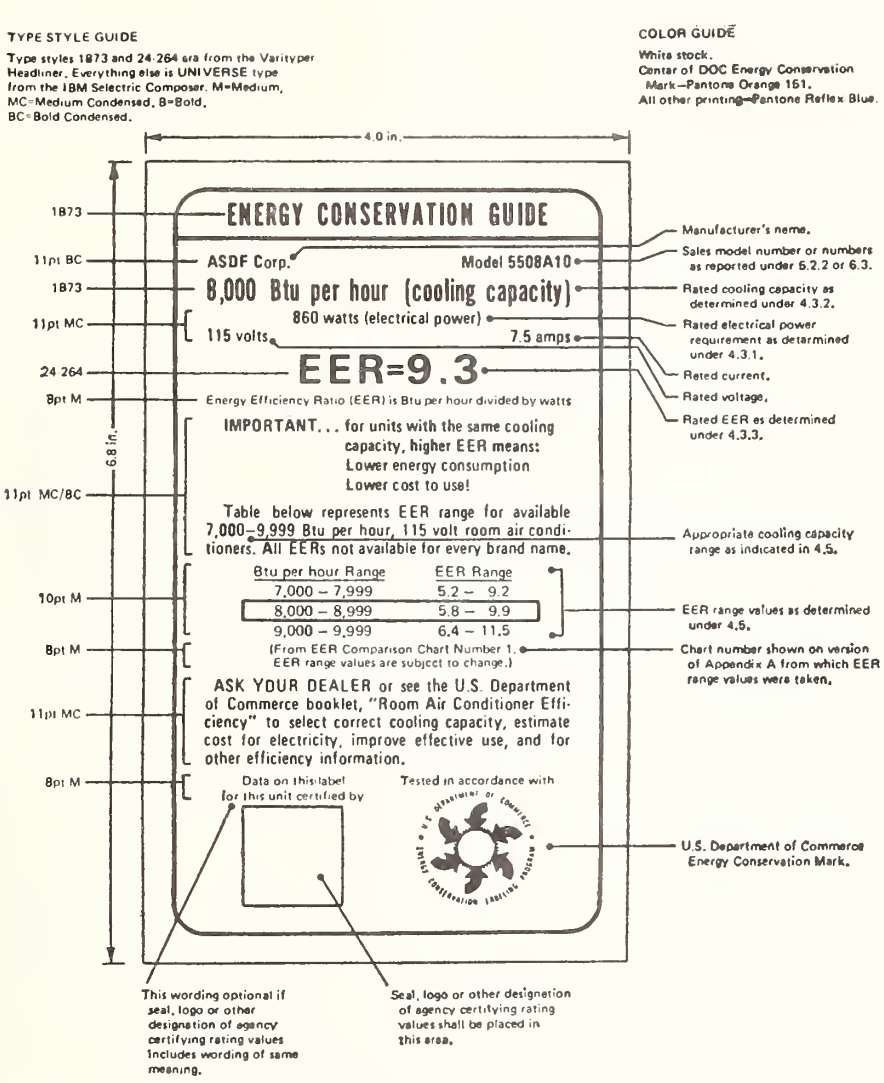


FIGURE 1

[Voluntary Energy Conservation Specification 1–74]

APPENDIX A.—*Range of Energy Efficiency Ratios for Room Air Conditioners*

(EER Comparison Chart No. 1)

Cooling capacity range B.t.u. per hour	Energy efficiency ratio range	
	115 volt units	Higher voltage units
Up to 4,999	5.2 to 5.4	
5,000 to 5,999	5.1 to 8.8	
6,000 to 6,999	5.6 to 10.5	5.4 to 6.1.
7,000 to 7,999	5.2 to 9.2	6.3 to 6.3.
8,000 to 8,999	5.8 to 9.9	4.9 to 6.7.
9,000 to 9,999	6.4 to 11.5	4.8 to 8.0.
10,000 to 10,999	6.2 to 12.0	5.3 to 8.0.
11,000 to 11,999	8.0 to 8.5	4.7 to 7.4.
12,000 to 12,999	8.7 to 9.6	4.7 to 8.3.
13,000 to 13,999	9.4 to 10.0	4.4 to 8.5.
14,000 to 14,999	10.1 to 10.3	5.1 to 8.0.
15,000 to 15,999		4.8 to 8.0.
16,000 to 17,999		5.8 to 8.5.
18,000 to 19,999		5.8 to 9.3.
20,000 to 23,999		5.7 to 8.1.
24,000 to 27,999		6.1 to 7.6.
28,000 to 31,999		6.0 to 7.8.
32,000 to 36,000		6.2 to 7.1.

From data supplied by the Association of Home Appliance Manufacturers. Includes only units operating on 60 hertz electrical service.

[FR Doc.74–2456 Filed 1–30–74;8:45 am]

EXHIBIT C

U.S. DEPARTMENT OF COMMERCE

OFFICE OF THE SECRETARY

Reprinted from Federal Register, Volume 39, Number 85, May 1, 1974

Office of the Secretary

ROOM AIR CONDITIONERS

Voluntary Energy Conservation; Testing and Labeling

By notice published in the FEDERAL REGISTER January 31, 1974 (39 FR 3982), the Department of Commerce announced its intention of issuing a Voluntary Energy Conservation Specification, hereinafter referred to as "Specification," for room air conditioners in accordance with the Procedures for a Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation, 15 CFR Part 9. A proposed Specification for room air conditioners was published in the same FEDERAL REGISTER and interested parties were afforded an opportunity to file written comments and suggestions.

Comments in response to the above referenced publication of the proposed Specification were received from sixteen sources and were reviewed and analyzed within the Department. A detailed analysis of the comments received has been prepared. A copy of this analysis is filed in the Central Reference and Records Inspection Facility, Room 7043, Commerce Building, 14th Street between Constitution Avenue and E Street NW., Washington, D.C. 20230, and is available for public inspection at that location.

Modifications based on the analysis of comments received have been made in the proposed Specification. Such modifications were also the result of coordination with the Council on Environmental Quality and the Environmental Protection Agency. Based on these actions the final Specification for room air conditioners, as set forth below, is hereby issued as part of the Department of Commerce Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation.

Effective date. Specifications issued under the Department of Commerce's Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation shall normally become effective 30 days following the date of publication in the FEDERAL REGISTER unless for good cause shown it is found that an earlier or later date is in the public interest and the reason for such finding is published.

It is hereby found that good cause has been shown that an earlier effective date of this Specification is in the public interest. This finding is based on the fact that room air conditioners are a seasonal item and the selling season is now at hand. An additional 30-day delay could seriously impair the ability of those manufacturers desiring to voluntarily participate in the program to label their units for the forthcoming season. Also, in view of the current energy problem and the importance of resolving such problem at the earliest practicable date, the need for an early start with regard to this Specification for room air conditioners makes it essential that the effective date be set as early as possible lest not merely an additional 30 days be lost but that a full year may not be lost in light of the seasonal nature of this product.

Furthermore, no burden would be placed upon any manufacturer of room air conditioners if an earlier effective date were set for a Specification on such product since the program is voluntary and, under the Department's procedures, manufacturers may elect to commence their participation in this program upon the effective date of the issuance of a final Voluntary Energy Conservation Specification or at any time thereafter.

Accordingly, this Specification shall become effective on May 1, 1974.

Issued: April 29, 1974.

BETSY ANCKER-JOHNSON,
Assistant Secretary for Science and Technology.

VOLUNTARY ENERGY CONSERVATION SPECIFICATION NO. 1–74, FOR ROOM AIR CONDITIONERS

Sec.

1.0 Purpose.
2.0 Scope.
3.0 Definitions.
4.0 Product testing and rating.
5.0 Product labeling.
6.0 Use of program information in retail sales catalogs or in advertising.
7.0 Participation in program.
8.0 Termination of participation.
9.0 Use of program information by other than manufacturers.
10.0 Amendment.

Figure 1
Figure 2

Appendix A—Cooling Capacity Ranges and EER Ranges

1.0 *Purpose.* The purpose of this Voluntary Energy Conservation Specification, hereinafter referred to as "Specification," is to establish procedures for testing and labeling room air conditioners in compliance with the Procedures for a Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation (15 CFR Part 9) and to define requirements for participation by manufacturers in the Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation with regard to that product class.

2.0 *Scope.* 2.1 This Specification shall apply to the product class consisting of all room air conditioners as defined in 3.4.

2.2 Room air conditioners covered by this Specification shall be rated with respect to the following energy use characteristics:

2.2.1 Electrical power requirement as described in 4.3.1.

2.2.2 Cooling capacity as described in 4.3.2.

2.2.3 Energy Efficiency Ratio (EER) as described in 4.3.3.

2.3 The present range of EER's of all known room air conditioners is as listed in Appendix A to this Specification. This appendix shall be updated and published in the Federal Register on an annual basis starting in January 1975. Copies of this appendix or updated versions of this appendix shall be provided by the Secretary of Commerce to any interested party upon request.

3.0 *Definitions.* 3.1 The term "Secretary" means the Secretary of Commerce.

3.2 The term "manufacturer" means any person engaged in the manufacturing or assembling of room air conditioners in the United States, or in the importing of such products for sale or resale, or any person whose brand or trademark appears on such products who owns such brand or trademark and has authorized its use on such product, if the brand or trademark of the person actually manufacturing or assembling the product does not appear on the product.

3.3 The term "Procedures" means Procedures for a Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation, 15 CFR Part 9.

3.4 The term "room air conditioner" means an encased assembly designed as a unit primarily for mounting in a window or through a wall for the purpose of providing delivery of conditioned air to an enclosed space. It includes a prime source of refrigeration and means for circulating and cleaning air and may include means for ventilating and heating.

3.5 The term "window model" means either a room air conditioner designed only for mounting in a window or a room air conditioner designed for mounting in a window or through a wall.

3.6 The term "through-wall model" means a room air conditioner designed exclusively for mounting through a wall. Room air conditioners designed primarily for mounting through a wall but which also are suitable for mounting in a window are, for the purpose of this Specification, considered "window models" as defined in 3.5.

3.7 The term "basic model" means all room air conditioners actually manufactured or assembled by one manufacturer and having the identical wattage and amperage ratings, and Btu per hour rating. Derivatives of a basic model may differ in details that do not affect performance as measured by the methods

described in 4.1. Acceptable differences include, but are not limited to, variations in trim, color, mounting method, sales model number, and brand name.

3.8 The term "retail sales catalog" means a catalog that contains a description of one or more models of room air conditioners, states the price of the model or models described, and from which consumers may make purchases by placing orders.

4.0 *Product testing and rating.* 4.1 Samples of room air conditioners shall be tested by manufacturers or their agents for cooling capacity and electrical power requirement in accordance with the following standards:

4.1.1 American National Standard Z234.1–1972, Room Air Conditioners, Sections 4, 5, 6.1, and 6.5.

4.1.2 American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 16–69, Method of Testing for Rating Room Air Conditioners.

4.2 Samples of room air conditioners shall be tested by manufacturers or their agents in accordance with the following requirements:

4.2.1 Unless otherwise required by the Secretary, under 4.2.5, test results obtained in the testing of one derivative of a basic model of room air conditioner may be accepted as applicable to all derivatives of that basic model.

4.2.2 Sufficient units of each basic model of room air conditioner, that are representative of units to be produced, shall be tested according to the methods and conditions specified in 4.1 to provide a valid basis for determining ratings. Results of tests and calculations shall be retained as required under 7.4.

4.2.3 Models having dual ratings shall be separately tested at each design voltage.

4.2.4 Manufacturers shall maintain such quality control programs, to include testing, as are necessary to insure that the performance of manufactured units is within the tolerances specified in 4.5. The use of national certification programs that are open to all manufacturers and that pertain to the performance characteristics listed on the label as a means for verifying the performance level of room air conditioners is acceptable. Results of tests and calculations shall be retained as required under 7.4.

4.2.5 In addition to the testing required under 4.2.2, 4.2.3, and 4.2.4, the Secretary may request that one or more units of any specified basic model or any specified derivative of a basic model, selected at random from among recent production units, be tested by the manufacturer or his agent according to the methods and conditions specified in 4.1. Such testing shall be performed at the manufacturer's expense and the resulting test data and calculations shall be provided to the Secretary within 30 days of receipt by the manufacturer of such a request. This requirement does not preclude the Department of Commerce from testing or having tested at its own expense any model or unit of room air conditioner.

4.3 Ratings for use on labels of room air conditioners shall be as follows:

4.3.1 Electrical power requirement shall be expressed in watts and shall be based upon the result of the electrical power test called for in 4.1.

4.3.2 Cooling capacity shall be expressed in Btu per hour and shall be based upon the result of the cooling capacity test called for in 4.1.

4.3.3 EER shall be expressed in Btu per watt-hour and shall be equal to the rated cooling capacity in Btu per hour as determined in 4.3.2 divided by the rated electrical power requirement in watts as determined in 4.3.1, this quotient then being rounded to the nearest 0.1.

4.3.4 For models having dual ratings, both sets of ratings shall be used on the label.

4.4 Cooling capacity ranges and ranges for use on room air conditioner labels shall be as follows:

4.4.1 The ranges shall be taken from the version of Appendix A in effect at the time the labels are applied. However, labels that are applied within a 90 day period following revision of Appendix A and showing previous EER ranges need not be replaced with labels showing new EER ranges.

4.4.2 The ranges shown on a label shall be taken from the appropriate column and line of Appendix A as determined by the rated cooling capacity, voltage rating, and method of mounting of the labeled model as defined in 3.5 or 3.6.

4.4.3 For models having dual *ratings*, only one EER *range* shall be shown on the label. The highest cooling capacity rating shall be used to select the correct line in Appendix A for determining the EER range shown on the label.

4.5 For specific models of room air conditioners tested under 4.2.4 or 4.2.5, the label shall be held to be in accordance with the requirements of this Specification only if the results of such tests fall within the following limits:

4.5.1 The value for electrical power requirement shall not be greater than 110 percent of the value shown on the label.

4.5.2 The value for cooling capacity shall not be less than 95 percent of the value shown on the label.

5.0 *Product labeling.* 5.1 The design of labels for room air conditioners shall be as follows:

5.1.1 The content and design of labels shall be as indicated in Figure 1 or Figure 2 at the end of this Specification. No marks or information other than that shown shall be placed within the border of labels except the specifically designated ratings, ranges, model numbers and names, and the seal, logo, or other designation of the certifier of rating accuracy. Except as provided in 5.1.3, the size of labels and type sizes shall be as indicated in Figure 1 or Figure 2 or a proportional enlargement of the label size and type sizes indicated in Figure 1 or Figure 2.

5.1.2 For models having dual ratings, numerical values relevant to the highest design voltage shall be shown first as for example: 230/208 volts, 6.0/6.5 amperes, 10,400/10,200 Btu per hour, 1,310/1,300 watts, EER=7.9/7.8.

5.1.3 When two or more models of room air conditioners having the same brand name have identical ratings, more than one model number may be shown on the label. The size of the label may be increased to accommodate such additional model number listings.

5.1.4 Labels shall be printed on a light color stock with a dark, contrasting color of ink. Preferred colors are white stock, center of Department of Commerce Energy Conservation Mark Pantone Orange 151, and all other printing Pantone Reflex Blue.

5.1.5 Camera-ready art suitable for printing the labels, but not including numerical ratings, model numbers, or the seal, logo, or other designation of the certifying agency, shall be provided by the Secretary to any manufacturer upon request. Actual labels shall be accurate reproductions of this art.

5.2 Room air conditioners shall be labeled by manufacturers as follows:

5.2.1 Labels shall be affixed to or hung as a tag on the front or "room" side of each unit in a conspicuous location. However, if the design of the front or "room" side of a model is such as to make fixing of labels thereto impractical, labels may be affixed on the top of units of such a model, in a position adjacent to the front. Labels are not intended to be permanent and may be affixed so as to be easily removed by a purchaser.

5.2.2 Labels shall appear clearly distinct from any other information supplied or displayed by the manufacturer so that the Department of Commerce Energy Conservation Mark on the label cannot reasonably be associated with such other information.

5.2.3 If any model of a given brand of room air conditioner is labeled, then every unit of every window model of that brand shall be labeled. If any through-wall model of a given brand is labeled, then every unit of every model of that brand, including window models, shall be labeled. However, these requirements shall not apply to units intended for export or units manufactured prior to the manufacturer's entry into the program.

5.2.4 For individual room air conditioner units manufactured and packaged prior to a manufacturer's entry into this program, manufacturers are encouraged to affix or hang appropriate labels, distribute appropriate labels to retailers to be attached to floor display models or other models, or provide point-of-purchase displays as described in 6.4. The manufacturer need not assume responsibility for assuring individual label attachment or use of point-of-purchase displays at retail outlets.

6.0 *Use of program information in retail sales catalogs or in advertising.* 6.1 For each labeled model of room air conditioner listed in a retail sales catalog, the listing shall contain either a legible reproduction of the appropriate label for that model, or a listing of the model number, the Btu per hour, watts, EER, volts, and amperes ratings for that model, and the appropriate cooling capacity and EER ranges for that model. The required information for one or more models may be presented in the form of a table.

6.2 For each labeled model of room air conditioner listed in a retail sales catalog, the cooling capacity range and

EER range shown in the catalog shall be determined as follows:

6.2.1 The ranges shall be taken from the version of Appendix A in effect 90 days before the press date of the catalog or from a later version of Appendix A if it can be utilized before the press date of such catalog.

6.2.2. The ranges shall be taken from the appropriate column and line of Appendix A as determined by the rated cooling capacity, voltage rating, and method of mounting of the listed model as defined in 3.5 or 3.6.

6.2.3 For models having dual ratings, the highest cooling capacity rating shall be used to determine the EER range shown in the catalog.

6.3 When labeled models of room air conditioners are listed in retail sales catalogs, the catalog section in which the models are listed shall contain an explanation of the significance of EER and a reproduction of the Department of Commerce Energy Conservation Mark. The EER explanation may be similar to that shown on the labels in Figures 1 and 2.

6.4 Legible reproductions of entire labels in any size may be used on packaging or in point-of-purchase displays or in other advertising applications, but such use shall not be a substitute for required labeling.

6.5 For a given model of room air conditioner, when the EER rating as determined in 4.3.3 exceeds the upper limit of the then-current EER range as determined in 4.4 for labels or 6.2 for catalog listings, manufacturers are encouraged to utilize this information in their advertising of that model.

6.6 Manufacturers are encouraged to distribute to retailers or to consumers program information provided by the Department of Commerce, such as NBS Publication LC 1053 which is referred to on room air conditioner labels.

7.0 *Participation in program.* 7.1 Manufacturers wishing to participate in the Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation with regard to room air conditioners shall notify the Department of Commerce of their intent. Communications conveying such intent should be addressed to the Assistant Secretary for Science and Technology, U.S. Department of Commerce, Room 3862, Washington, D.C. 20230. Unless otherwise ruled by the Secretary, approval for participation by any manufacturer is automatically granted upon this notification to the Department, provided that the conditions for participation as set forth in the Procedures and in this Specification are observed.

7.2 A manufacturer's notice of participation shall include the following information:

7.2.1 A statement that the tests and calculations called for under 4.0 will be completed as required and that the manufacturer certifies the accuracy, within the tolerances prescribed under 4.5, of ratings that will be listed on labels.

7.2.2 A listing of all room air conditioner models to be labeled including an indication of the grouping of sales models into basic models. All appropriate models, as defined in 5.2.3, of any single brand name shall be included.

7.2.3 A statement that the manufacturer will desist from using the labels and Department of Commerce Energy Conservation Mark if the manufacturer's participation in the program is terminated by the Department of Commerce under the provisions of 8.2.

7.2.4 The effective date of the manufacturer's entry into the program.

7.3 When a manufacturer's listing of room air conditioner models to be labeled as required under 7.2.2 is changed by the addition or deletion of models or changes in model designations or ratings, or by termination of the manufacturer's participation in the program with respect to room air conditioners of a given brand name and mounting method group as defined in 5.2.3, the manufacturer or his agent shall notify the Secretary within 30 days of such changes.

7.4 Manufacturers or their agents shall maintain files of test results and calculations on which ratings are based and files of test results and calculations used to verify that the performance of manufactured units is within the tolerances specified in 4.5. Data relating to a given model shall be preserved for a period of two years after production of that model has been terminated, and if requested shall be provided to the Secretary within 30 days.

7.5 Manufacturers or their agents shall transmit required information to the Secretary in concise and readily understandable form. For this purpose copies of appropriate lists and reports used for other purposes, as for example reports submitted by a manufacturer to the sponsor of a nationally recognized certification program, or reports submitted by an independent testing laboratory to such a sponsor or a manufacturer, shall be acceptable.

8.0 *Termination of participation.* 8.1 A manufacturer may at any time terminate his participation and responsibilities under the program with respect to room air conditioners of a given brand name and mounting method group as defined in 5.2.3 by giving written notice to the Secretary that he will discontinue or has discontinued use of the labels on all room air conditioners of that brand and group. Such notice shall state the effective date of the manufacturer's termination of participation.

8.2 The Department of Commerce upon finding that a manufacturer is not complying with the conditions for participation set forth in this Specification and in the Procedures may terminate upon 30 days notice the manufacturer's participation in the program: *Provided,* that the manufacturer shall first be given an opportunity to show cause why the participation should not be terminated.

8.3 Upon receipt of a notice of termination a manufacturer may within 30 days request a hearing under the provisions of 5 U.S.C. 558.

9.0 *Use of program information by other than manufacturers.* 9.1 Retail sales organizations that are not manufacturers as defined in 3.2, that sell room air conditioners labeled under this program and have received appropriate and accurate program information from manufacturers or the Secretary, are specifically encouraged to utilize program information in their sales efforts in the manner prescribed in 9.2.

9.2 Appropriate activities for non-manufacturers include the following:

9.2.1 Use of room air conditioner ratings, cooling capacity and EER ranges, explanations of the significance of EER's, and reproductions of the U.S. Department of Commerce Energy Conservation Mark, under the guidelines described in 6.1, 6.2, and 6.3, in retail sales catalogs.

9.2.2 Affixing of labels or appropriate use of point-of-purchase displays, provided by manufacturers under 5.2.4, in sales areas.

9.2.3 Use of reproductions of labels, in the manner described in 6.4, in advertising.

9.2.4 Advertising of instances where the rated EER of a given model of room air conditioner exceeds the upper limit of the then-current EER range for models in its cooling capacity range, as described under 6.5.

9.2.5 Distribution of program information provided by the Department of Commerce, such as NBS Publication LC 1053 which is referred to on the room air conditioner labels. Program information may be obtained from the National Bureau of Standards, 411.00, Washington, D.C. 20234.

10.0 *Amendment.* This Specification is subject to amendment as provided in section 9.8 of the Procedures, except that Appendix A of this Specification may be updated and published in the Federal Register annually as described in 2.3 without first publishing notice of the proposed change in the FEDERAL REGISTER.

TYPE STYLE GUIDE

(Use type styles specified below or equivalent)

Type styles 1871 and 24-264 are from the Varityper Headliner. Everything else is UNIVERSE type from the IBM Selectric Composer. M=Medium, MC=Medium Condensed, BC=Bold Condensed.

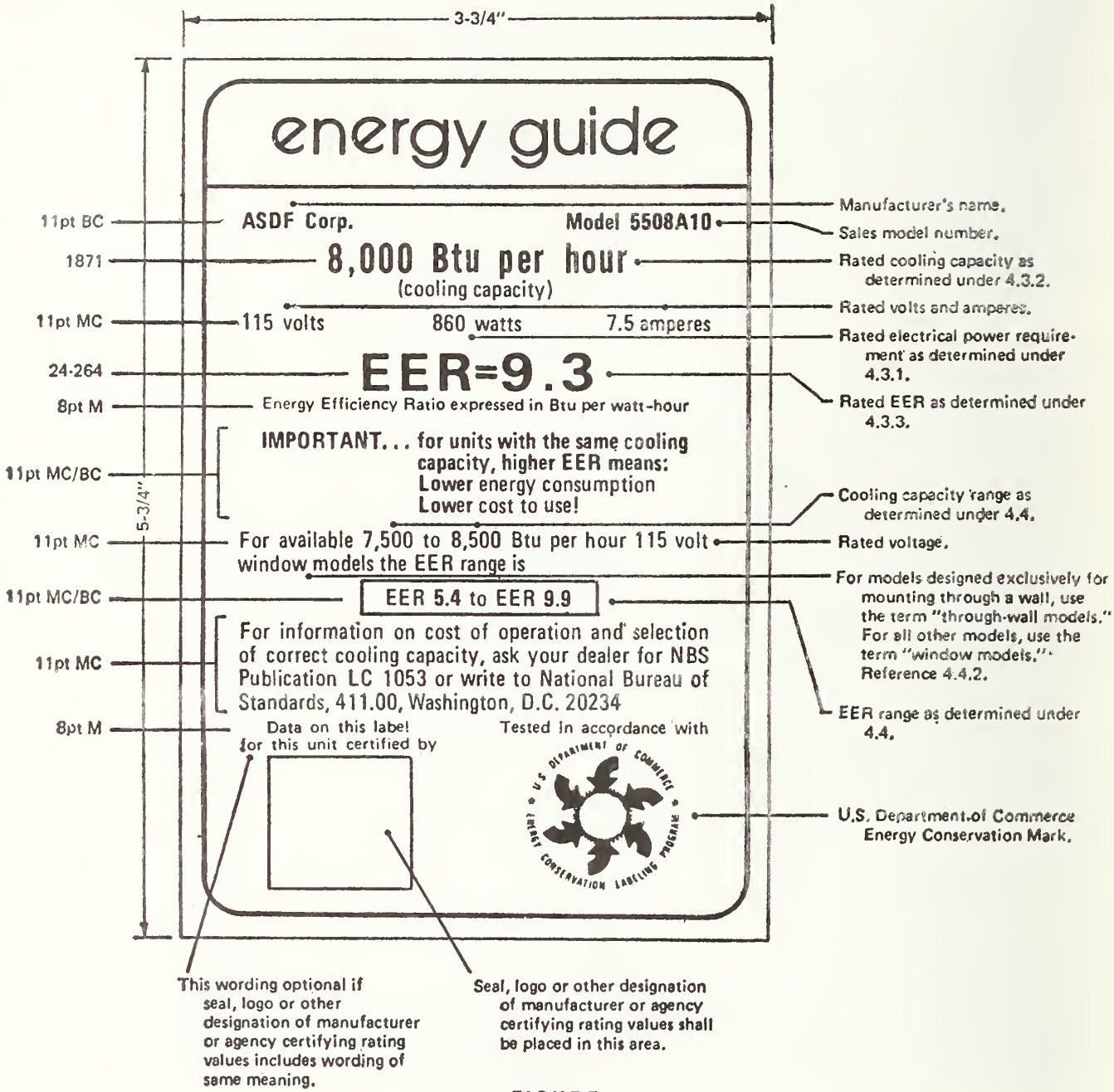


FIGURE 1

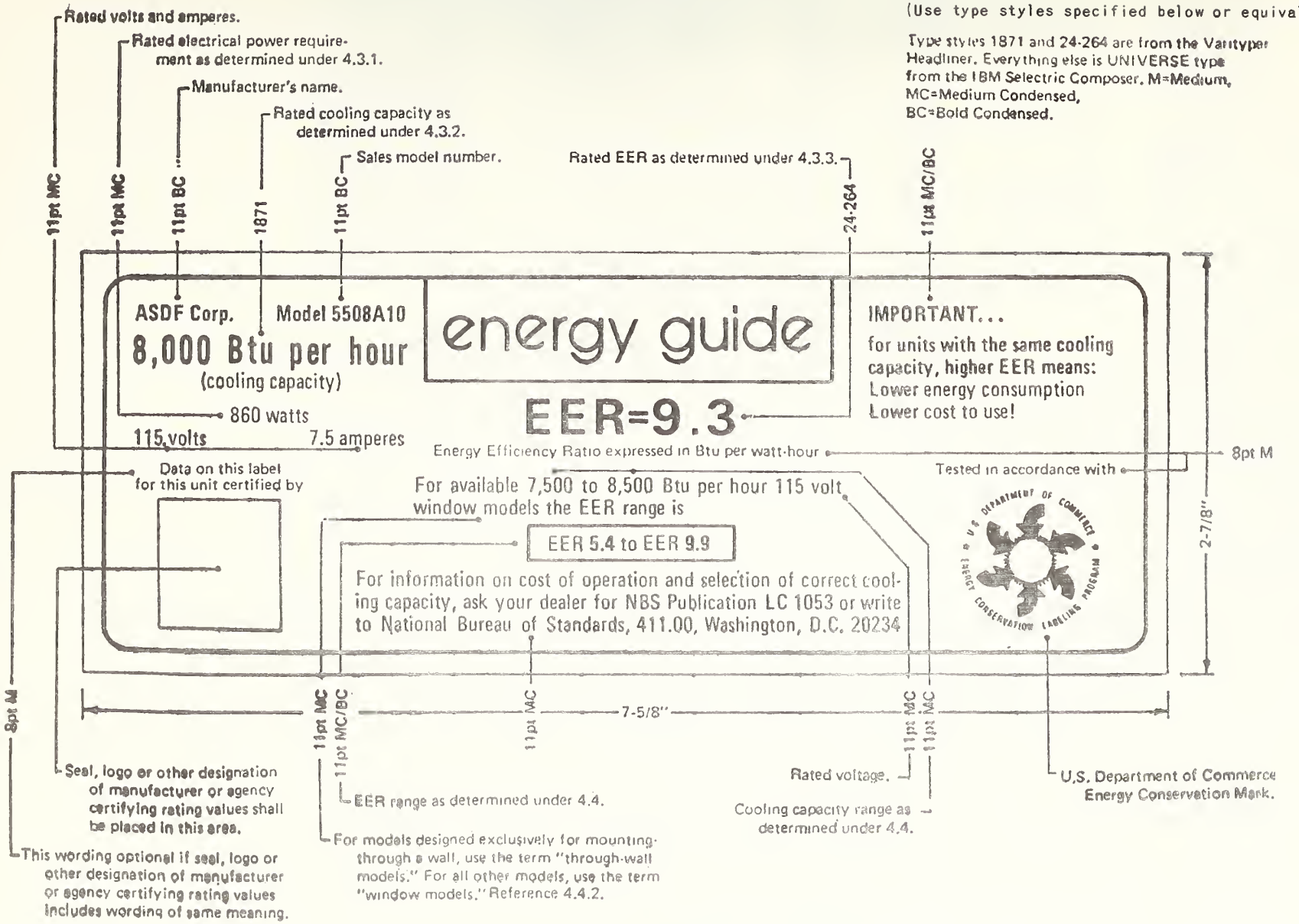

TYPE STYLE GUIDE
(Use type styles specified below or equivalent)
Type styles 1871 and 24-264 are from the Varityper Headliner. Everything else is UNIVERSE type from the IBM Selectric Composer. M=Medium, MC=Medium Condensed, BC=Bold Condensed.
Rated volts and amperes.
Rated electrical power requirement as determined under 4.3.1.
Manufacturer's name.
Rated cooling capacity as determined under 4.3.2.
Sales model number.
Rated EER as determined under 4.3.3.
11pt MC
11pt MC
11pt BC
1871
11pt BC
24-264
11pt MC/BC
ASDF Corp.
Model 5508A10
8,000 Btu per hour
(cooling capacity)
energy guide
IMPORTANT...
for units with the same cooling capacity, higher EER means:
Lower energy consumption
Lower cost to use!
860 watts
115 volts
7.5 amperes
EER=9.3
Energy Efficiency Ratio expressed in Btu per watt-hour
8pt M
Tested in accordance with
Data on this label for this unit certified by
For available 7,500 to 8,500 Btu per hour 115 volt window models the EER range is
EER 5.4 to EER 9.9
For information on cost of operation and selection of correct cooling capacity, ask your dealer for NBS Publication LC 1053 or write to National Bureau of Standards, 411.00, Washington, D.C. 20234
U.S. DEPARTMENT OF COMMERCE
ENERGY CONSERVATION LABELING PROGRAM
2-7/8"
8pt M
11pt MC
11pt MC/BC
11pt MC
7-5/8"
11pt MC
11pt MC
Seal, logo or other designation of manufacturer or agency certifying rating values shall be placed in this area.
This wording optional if seal, logo or other designation of manufacturer or agency certifying rating values includes wording of same meaning.
EER range as determined under 4.4.
For models designed exclusively for mounting through a wall, use the term "through-wall models." For all other models, use the term "window models." Reference 4.4.2.
Rated voltage.
Cooling capacity range as determined under 4.4.
U.S. Department of Commerce Energy Conservation Mark.

FIGURE 2

VOLUNTARY ENERGY CONSERVATION SPECIFICATION 1-74, FOR ROOM AIR CONDITIONERS

APPENDIX A: COOLING CAPACITY RANGES AND EER RANGES FOR USE ON LABELS AND IN CATALOGS

RATED COOLING CAPACITY OF MODEL TO BE LABELED OR LISTED IN CATALOG, Btu PER HOUR	COOLING CAPACITY RANGE FOR USE ON LABEL OR IN CATALOG, Btu PER HOUR	EER RANGE FOR USE ON LABEL OR IN CATALOG, Btu PER WATT-HOUR			
		WINDOW MODELS *		THROUGH-WALL MODELS **	
		115 VOLT MODELS	HIGHER VOLTAGE MODELS	115 VOLT MODELS	HIGHER VOLTAGE MODELS
UP TO 4,799	UP TO 5,000	5.1 to 8.7	-	-	-
4,800 to 5,199	4,500 to 5,500	5.1 to 8.8	-	-	-
5,200 to 5,799	5,000 to 6,000	5.1 to 8.8	-	6.0 to 6.5	5.4 to 6.1
5,800 to 6,199	5,500 to 6,500	5.6 to 8.8	-	6.0 to 7.6	5.4 to 6.1
6,200 to 6,799	6,000 to 7,000	5.6 to 10.5	-	6.0 to 7.6	5.4 to 6.1
6,800 to 7,199	6,500 to 7,500	5.2 to 10.5	-	5.4 to 7.6	-
7,200 to 7,799	7,000 to 8,000	5.2 to 9.3	-	5.4 to 6.0	6.2 to 6.3
7,800 to 8,199	7,500 to 8,500	5.4 to 9.9	5.6 to 6.5	5.4 to 6.4	5.6 to 6.3
8,200 to 8,799	8,000 to 9,000	5.8 to 10.5	4.9 to 7.0	6.0 to 6.7	4.9 to 7.8
8,800 to 9,199	8,500 to 9,500	6.2 to 11.0	4.8 to 7.0	6.2 to 6.9	4.8 to 8.0
9,200 to 9,799	9,000 to 10,000	6.5 to 11.5	4.8 to 7.1	6.4 to 7.3	4.8 to 8.0
9,800 to 10,199	9,500 to 10,500	6.5 to 12.0	5.2 to 7.9	6.9 to 12.0	4.9 to 6.3
10,200 to 10,799	10,000 to 11,000	6.2 to 12.0	5.0 to 8.0	6.2 to 12.0	5.5 to 6.3
10,800 to 11,199	10,500 to 11,500	6.2 to 8.5	5.0 to 8.0	6.2 to 6.2	5.2 to 6.6
11,200 to 11,799	11,000 to 12,000	8.0 to 8.9	4.7 to 7.0	-	4.7 to 7.5
11,800 to 12,199	11,500 to 12,500	8.3 to 9.4	4.7 to 7.9	-	4.7 to 7.5
12,200 to 12,799	12,000 to 13,000	8.7 to 9.6	4.8 to 8.3	-	4.7 to 7.5
12,800 to 13,199	12,500 to 13,500	9.4 to 9.8	5.5 to 8.5	-	4.4 to 5.7
13,200 to 13,799	13,000 to 14,000	9.4 to 10.2	5.0 to 8.5	10.2 to 10.2	4.4 to 5.7
13,800 to 14,199	13,500 to 14,500	9.8 to 10.3	5.0 to 7.5	10.2 to 10.2	4.4 to 5.7
14,200 to 14,799	14,000 to 15,000	10.1 to 10.3	5.1 to 8.0	10.2 to 10.2	4.8 to 6.7
14,800 to 15,199	14,500 to 15,500	-	5.2 to 8.0	-	4.8 to 6.7
15,200 to 15,799	15,000 to 16,000	-	5.2 to 8.4	-	4.8 to 6.7
15,800 to 16,499	15,500 to 16,800	-	5.5 to 8.5	-	-
16,500 to 17,499	16,200 to 17,800	-	5.8 to 8.5	-	6.3 to 7.6
17,500 to 18,499	17,200 to 18,800	-	5.8 to 9.2	-	6.5 to 8.0
18,500 to 19,499	18,200 to 19,800	-	6.0 to 9.3	-	-
19,500 to 20,499	19,200 to 20,800	-	5.7 to 7.2	-	6.3 to 6.3
20,500 to 21,499	20,200 to 21,800	-	6.3 to 8.1	-	6.7 to 6.7
21,500 to 22,499	21,200 to 22,800	-	5.8 to 8.1	-	-
22,500 to 24,499	22,000 to 25,000	-	5.8 to 8.0	-	6.5 to 6.8
24,500 to 26,499	24,000 to 27,000	-	5.9 to 7.6	-	6.7 to 7.0
26,500 to 28,499	26,000 to 29,000	-	5.9 to 7.8	-	6.7 to 7.0
28,500 to 30,499	28,000 to 31,000	-	6.0 to 7.8	-	-
30,500 to 33,499	30,000 to 34,500	-	6.0 to 7.1	-	-
33,500 to 36,000	32,500 to 36,000	-	6.2 to 7.1	-	-

From data supplied by the Association of Home Appliance Manufacturers
Includes only units operating on 60 hertz electrical service.

* Includes EER ratings of all window models as defined in 3.5.

** Includes EER ratings of all through-wall models as defined in 3.6 plus EER ratings of window models suitable for mounting through a wall.

[FR Doc.74-10065 Filed 4-29-74;3:27 pm]

EXHIBIT D

U.S. DEPARTMENT OF COMMERCE

OFFICE OF THE SECRETARY

Reprinted from Federal Register, Volume 39, Number 252--Tuesday, December 31, 1974

(Pages 45334-45347)

DEPARTMENT OF COMMERCE

Office of the Secretary

REFRIGERATORS, REFRIGERATOR-FREEZERS AND FREEZERS

Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation

Notice is hereby given that the Department of Commerce proposes to issue separate Voluntary Energy Conservation Specifications for refrigerators, combination refrigerator-freezers, and freezers in accordance with section 9.4 of the Procedures for a Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation, 15 CFR Part 9. The proposed specifications describe procedures for testing and labeling these products in compliance with the above mentioned procedures, and contain instructions for participation by manufacturers in the voluntary labeling program with regard to these products.

For each of the following three specifications it is intended that Appendix A to that specification shall contain values for the ranges of energy consumption and cost of operation for all models of the subject appliance now on the market. Such information is being obtained but is not yet available. Therefore, the energy consumption and cost of operation range values contained in the Appendices of these proposed specifications are hypothetical and are used for the purpose of example only. The final versions of these specifications will not be issued until actual energy consumption and cost of operation range values have been obtained and published for public comment.

Interested persons are invited to participate in development of final specifications covering refrigerators, combination refrigerator-freezers, and freezers by submitting written comments or suggestions in four copies to the Assistant Secretary for Science and Technology, U.S. Department of Commerce, Room 3862, Washington, D.C. 20230, on or before February 14, 1975. Interested persons desiring to express their views in an informal hearing may do so if, on or before January 15, 1975, they submit a request to the Assistant Secretary for Science and Technology that such a hearing be held.

A public docket of correspondence and transcripts of hearings will be available for examination by interested persons at the Central Reference and Records Inspection Facility of the Department of Commerce, Room 7043, Main Commerce Building, 14th Street between E Street and Constitution Avenue NW., Washington, D.C. 20230.

DECEMBER 24, 1974.

BETSY ANCKER-JOHNSON,
Assistant Secretary for Science and Technology.

The following are the proposed specifications under consideration for refrigerators, combination refrigerator-freezers, and freezers.

VOLUNTARY ENERGY CONSERVATION SPECIFICATION NO. 2–75, FOR REFRIGERATORS

Sec.

1.0 Purpose.
2.0 Scope.
3.0 Definitions.
4.0 Product testing and rating.
5.0 Product labeling.
6.0 Use of program information by manufacturers in retail sales catalogs or in advertising.
7.0 Participation in program.
8.0 Termination of participation.
9.0 Use of program information by other than manufacturers.
10.0 Amendment.
Figures 1 and 2—Refrigerator label.
Appendix A—Total refrigerated volume, energy consumption, and cost of operation ranges.

1.0 Purpose. The purpose of this Voluntary Energy Conservation Specification, hereinafter referred to as "Specification," is to establish procedures for testing and labeling refrigerators in compliance with the Procedures for a Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation (15 CFR Part 9) and to define requirements for participation by manufacturers in the Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation with regard to that product class.

2.0 Scope. 2.1. This Specification shall apply to the product class consisting of all refrigerators as defined in 3.4.

2.2. Refrigerators covered by this Specification shall be rated with respect to the following characteristics:

2.2.1 Total refrigerated volume as described in 4.3.1.

2.2.2 Energy consumption as described in 4.3.2.

2.2.3 Cost of operation as described in 4.3.3.

2.3. Values for energy consumption and cost of operation ranges for all refrigerators for which data are available are contained in Appendix A to this Specification. This appendix shall be updated and published in the Federal Register on an annual basis starting in February 1976. Copies of this appendix or updated versions thereof shall be provided by the Secretary to any interested party upon request.

3.0 Definitions. 3.1. The term "Secretary" means the Secretary of Commerce.

3.2. The term "manufacturer" means any person engaged in the manufacturing or assembling of refrigerators in the United States, or in the importing of such products for sale or resale, or any person whose brand or trademark appears on such products who owns such brand or trademark and has authorized its use on such product, if the brand or trademark of the person actually manufacturing or assembling the product does not appear on the product.

3.3. The term "Procedures" means Procedures for a Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation (15 CFR Part 9).

3.4. The term "refrigerator" means a cabinet designed for the refrigerated storage of food at temperatures above 32°F, and having a source of refrigeration driven by an electric motor. It may include a compartment for the freezing and storage of ice and for short term storage of food at temperatures below 32°F, but does not provide a separate low temperature compartment designed for the freezing of and the long term storage of food at temperatures below 8°F. It has only one exterior door, but it may have interior doors on compartments.

3.5. The term "basic model group" means all refrigerators actually manufactured or assembled by one manufacturer having the same rated total refrigerated volume and rated energy consumption. A basic model group may contain one or more members. Members of a basic model group may differ in details that do not affect total refrigerated volume or energy consumption as determined by the methods described in 4.1. Acceptable differences include, but are not limited to, variations in trim, color, sales model number, or brand name.

3.6. The term "defrost system" means the components and/or procedures by which frost is removed from refrigerated surfaces.

3.7. The term "manual defrost" means a defrost system in which the defrosting action for all refrigerated surfaces is initiated manually.

3.8. The term "total refrigerated volume" means the total volume of all refrigerated compartments as measured and calculated in accordance with 4.1.1 and referred to in the standard referenced in 4.1.1 as "net refrigerated volume."

3.9. The term "cost of operation" means the approximate cost of the electric energy used in a month and is as determined in 4.3.3. It does not include such costs as repairs and depreciation.

3.10. The term "retail sales catalog" means a catalog that contains a description of one or more models of refrigerators, states the price of the model or models described, and from which consumers may make purchases by placing orders.

4.0. Product testing and rating. 4.1. Samples of refrigerators shall be tested by manufacturers or their agents in accordance with the following standards:

4.1.1. American National Standard B38.1–1970, Section 3.2, for computation of total refrigerated volume.

4.1.2. Association of Home Appliance Manufacturers Standard HRF–2–ECFT–1974 for measurement of energy consumption.

4.2. Samples of refrigerators shall be tested by manufacturers or their agents in accordance with the following requirements:

4.2.1. Unless otherwise required by the Secretary under 4.2.4, test results obtained in the testing of one member of a basic model group may be accepted as applicable to all members of that basic model group.

4.2.2. Sufficient units from each basic model group, that are representative of units to be produced, shall be tested according to the methods and procedures specified in 4.1 to provide a valid basis for determining ratings. Results of tests and calculations shall be retained as required under 7.4.

4.2.3. Manufacturers shall maintain such quality control programs, to include testing, as are necessary to insure that the performance of manufactured units is within the tolerances specified in 4.5. The use of national certification programs that are open to all manufacturers and that pertain to the performance characteristics listed on the label as a means for verifying the performance level is acceptable. Results of tests and calculations shall be retained as required under 7.4.

4.2.4. In addition to the testing required under 4.2.2 and 4.2.3, the Secretary may upon acquisition of adequate evidence of possible mislabeling request that one or more units of any specified model selected at random from among recent production units, be tested by the manufacturer or his agent according to the methods and conditions specified in 4.1. Such testing shall be performed at the manufacturer's expense and the resulting test data and calculations shall be provided to the Secretary within 60 days of receipt by the manufacturer of such a request. This requirement does not preclude the Department of Commerce from testing or having tested at its own expense any refrigerator.

4.3. Ratings of refrigerators shall be as follows:

4.3.1. Total refrigerated volume shall be expressed in cubic feet and shall be based on the result of the measurement and computation called for in 4.1.1.

4.3.2. Energy consumption shall be expressed in Kilowatt-hours per month and shall be based on the result of the energy consumption test called for in 4.1.2, which provides a rating expressed in Kilowatt-hours per 24 hours, multiplied by 30 days per month and rounded to the nearest Kilowatt-hour per month.

4.3.3. Cost of operation shall be expressed in dollars per month and shall equal the rated energy consumption in Kilowatt-hours per month multiplied by electric rates of 1, 3, 4, 5, 7, and 9 cents per Kilowatt-hour, these costs each rounded to the nearest one-tenth dollar per month.

4.4. Ranges of total refrigerated volume, energy consumption, and cost of operation for use on labels shall be as follows:

4.4.1. Ranges shall be taken from the version of Appendix A in effect at the time the labels are applied, except that labels applied within a 90-day period following a revision of Appendix A need not be replaced with labels showing the new ranges.

4.4.2. The total refrigerated volume range shown on a label shall be taken from the appropriate line of Appendix A as determined by the rated total refrigerated volume of the model to be labeled. For example, if the model to be labeled has a rated total refrigerated volume of 12 cubic feet, the total refrigerated volume range used on the label for that model shall be 10 to 13 cubic feet.

4.4.3. The energy consumption and cost of operation ranges shown on a label shall be taken from the appropriate line of Appendix A as determined by the total refrigerated volume of the model to be labeled.

4.5. All members of a basic model group shall be held to be improperly rated and labeled if two units of that group are tested under 4.2.3 or 4.2.4 and the results of such tests on both units fall outside the following limits:

4.5.1. The value for total refrigerated volume shall not be less than 98.5 percent of the value shown on the label.

4.5.2. The value for energy consumption shall not be greater than 110 percent of the value shown on the label.

4.5.3. The values for cost of operation shall be accurate to the nearest one-tenth dollar per month.

5.0. Product labeling. 5.1. The design of labels shall be as follows:

5.1.1. The design of labels shall be as shown in Figures 1 and 2 at the end of this Specification. Except as provided in 5.1.2 and 5.1.3, no marks or information other than that indicated in Figures 1

and 2 shall be placed within the border of the label and the size of labels and sizes of type shall be as shown in Figures 1 and 2 or a proportional enlargement of the sizes indicated.

5.1.2. Minor variations in the appearance of labels, that may be required for computerized printing techniques, may be requested by application to the Assistant Secretary for Science and Technology, U.S. Department of Commerce, Room 3862, Washington, D.C. 20230. Such variations shall be limited to changes in the type style or type size used to indicate values of ratings or ranges, model numbers, or other label elements that change from model to model. Applications for change shall include an example of the proposed change.

5.1.3. When two or more models having the same brand name have identical ratings, more than one model number may be shown on the label. The size of the label may be increased to accommodate such additional model number listings.

5.1.4. Labels shall be printed on both sides of white stock. The areas so indicated in Figures 1 and 2 shall be printed in *Pantone Super Warm Red*. The seal or logotype of the certifying agency shall be printed in any legible color or colors. All other printing shall be in black.

5.1.5. Camera-ready art suitable for printing the labels, but not including numercial ratings, model numbers, or the seal, logo, or other designation of the certifying agency, shall be provided by the Secretary to any manufacturer upon request. Actual labels shall be accurate reproductions of this art.

5.2. Refrigerators shall be labeled as follows:

5.2.1. Labels shall be folded as indicated in Figure 1 and hung as a tag on the front of a shelf in the refrigerator compartment or from the inside of the refrigerator compartment door at a height from the floor of four feet or as close to four feet as is practicable.

5.2.2. Labels shall appear clearly distinct from any other information supplied or displayed by the manufacturer so that the Department of Commerce Energy Conservation Mark on the label cannot reasonably be associated with such other information.

5.2.3. If any model of a given brand of refrigerator is labeled, then every model of that brand shall be labeled. However, these requirements shall not apply to units intended for export or units manufactured prior to the manufacturer's entry into the program.

5.2.4. For individual units manufactured and packaged prior to a manufacturer's entry into this program, manufacturers are encouraged to hang appropriate labels, distribute appropriate labels to retailers to be attached to floor display models or other models, or provide point-of-purchase displays as described in 6.4. The manufacturer need not assume responsibility for assuring individual label attachment or use of point-of-purchase displays at retail outlets under the provisions of this subsection.

6.0 Use of program information by manufacturers in retail sales catalogs or in advertising. 6.1. For each labeled model listed in a retail sales catalog, the listing shall be in the form of a reproduction of the label shown in Figure 1 or in any other format or arrangement that shall present all of the information shown in that Figure. The required information for one or more models may be presented in a table or tables.

6.2. For each labeled model listed in a retail sales catalog, the total refrigerated volume, energy consumption, and cost of operation ranges shown in the catalog shall be determined as follows:

6.2.1. The ranges shall be taken from the version of Appendix A in effect 90 days before the press date of the catalog or from a later version of Appendix A if it can be utilized before the press date of such catalog.

6.2.2. The ranges shall be taken from the appropriate version of Appendix A using the procedures deseribed in 4.4.2 and 4.4.3.

6.3. When labeled models are listed in retail sales catalogs, the catalog section in which the models are listed shall contain an explanation of how cost of operation can be calculated and a reproduction of the Department of Commerce Energy Conservation Mark.

6.4. Legible reproductions of that portion of the label shown in Figure 1, in any size, may be used on the product, on packaging, in point-of-purchase displays, or in other advertising applications, but such use shall not be a substitute for required labeling.

6.5. For a given model, when the energy consumption rating as determined in 4.3.2 and cost of operation rating at 4¢ per Kilowatt-hour as determined in 4.3.3 are less than the lower limit of the appropriate energy consumption and cost of operation ranges as determined in 4.4.3 for labels or 6.2 for use in retail sales catalogs, manufacturers are encouraged to utilize this fact in their advertising of that model. This condition could result from introduction of a new or improved model, and in such case would persist until new energy consumption and cost of operation ranges had been issued.

7.0 Participation in Program. 7.1. Manufacturers wishing to participate in the Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation with regard to refrigerators shall notify the Department of Commerce of intended participation. Such notification should be addressed to the Assistant Secretary for Science and Technology, U.S. Department of Commerce, Room 3862, Washington, D.C. 20230. Approval for participation by any manufacturer is automatically granted upon this notification to the Department, provided that the conditions for participation as set forth in the Procedures and in this Specification are observed. Receipt of such notification will be acknowledged.

7.2. A manufacturer's notice of participation shall include the following information:

7.2.1. A statement that the tests and calculations called for under 4.0 will be completed as required and that the manufacturer certifies the accuracy, within the tolerances prescribed under 4.5, of ratings as shown on labels.

7.2.2. A listing of all models to be labeled including an indication of the grouping of sales models into basic model groups. All appropriate models as defined in 5.2.3 shall be included.

7.2.3. A statement that the manufacturer will desist from using the labels and the Department of Commerce Energy Conservation Mark if the manufacturer's participation in the program is terminated by the Department of Commerce under the provisions of 8.2.

7.2.4. The effective date of the manufacturer's entry into the program.

7.2.5. A statement that a listing of total refrigerated volume, energy consumption, and cost of operation at 4¢ per Kilowatt-hour ratings for all models to be labeled will be provided to the Secretary within 90 days after the date of the manufacturer's notice of participation. Such listing may be made in whole or in part by reference to readily available listings of certified refrigerators.

7.3. When a manufacturer's listing of refrigerator models to be labeled as required under 7.2.2 or his listing of total refrigerated volume, energy consumption, or cost of operation ratings as required under 7.2.5 is changed by the addition or deletion of models or changes in model designations or ratings, or if the manufacturer terminates his participation in the program with respect to refrigerators of a given brand name, the manufacturer or his agent shall notify the Secretary within 30 days.

7.4. Manufacturers or their agents shall maintain files of test results and calculations on which ratings are based and files of test results and calculations used to verify that the performance of manufactured units is within the tolerances specified in 4.5. Data relating to a given model shall be preserved for a period of two years after production of that model has been terminated, and if requested shall be provided to the Secretary within 30 days of such request.

7.5. Manufacturers or their agents shall transmit required information to the Secretary in concise and readily understandable form. For this purpose copies of appropriate lists and reports used for other purposes, as for example, reports submitted by a manufacturer to the sponsor of a nationally recognized certification program, or reports submitted by an independent testing laboratory to such a sponsor or a manufacturer, shall be acceptable.

7.6. Should any labeled refrigerator be tested and found to be improperly rated and labeled as described in 4.5, the manufacturer shall within 30 days give notice of non-compliance and a statement of revised ratings in writing to the Secretary and to all distributors or others in

the line of distribution who are responsible for sales to dealers or other retail outlets. He shall also arrange to have corrected labels available for substitution on models currently on display at retail outlets and for those placed on display at a later date, and shall see that such outlets are notified through his normal channels of distribution.

8.0 Termination of participation. 8.1. A manufacturer may at any time terminate his participation and responsibilities under the program with respect to refrigerators of a given brand name by giving written notice to the Secretary that he will discontinue or has discontinued use of the labels on all refrigerators of that brand name. Such notice shall state the effective date of the manufacturer's termination of participation.

8.2. The Department of Commerce upon finding that a manufacturer is not complying with the conditions for participation set forth in this Specification and in the Procedures may terminate upon 30 days notice the manufacturer's participation in the program: *Provided,* That the manufacturer shall first be given an opportunity to show cause why the participation should not be terminated.

8.3. Upon receipt of a notice of termination a manufacturer may within 30 days request a hearing under the provisions of 5 U.S.C. 558.

9.0 Use of program information by other than manufacturers. 9.1. Retail sales organizations that are not manufacturers as defined in 3.2, that sell refrigerators labeled under this program, and have received appropriate and accurate program information from manufacturers or the Secretary, are specifically encouraged to utilize program information in their sales efforts in the manner prescribed in 9.2.

9.2. Appropriate activities for nonmanufacturers include the following:

9.2.1. Use of total refrigerated volume ratings and ranges, energy consumption ratings and ranges, cost of operation at 4¢ per Kilowatt-hour ratings and ranges, explanations of how cost of operation can be calculated, and reproduction of the Department of Commerce Energy Conservation Mark, under the guidelines described in 6.1, 6.2, and 6.3, in retail sales catalogs.

9.2.2. Affixing of labels or appropriate use of point-of-purchase displays, provided by manufacturers under 5.2.4, in sales areas.

9.2.3. Use of reproductions of labels, in the manner described in 6.4, in advertising.

9.2.4. Advertising of instances where the energy consumption and cost of operation ratings of a given model are less than the lower limit of the appropriate energy consumption and cost of operation ranges, as described under 6.5.

9.2.5. Distribution of program information provided by the Department of Commerce. Program information may be obtained from the National Bureau of Standards, 411.00, Washington, D.C. 20234.

10.0 Amendment. This Specification is subject to amendment as provided in Section 9.8 of the Procedures, except that Appendix A of this Specification may be updated and published in the FEDERAL REGISTER annually as described in 2.3 of this Specification without first publishing notice of the proposed change in the FEDERAL REGISTER.

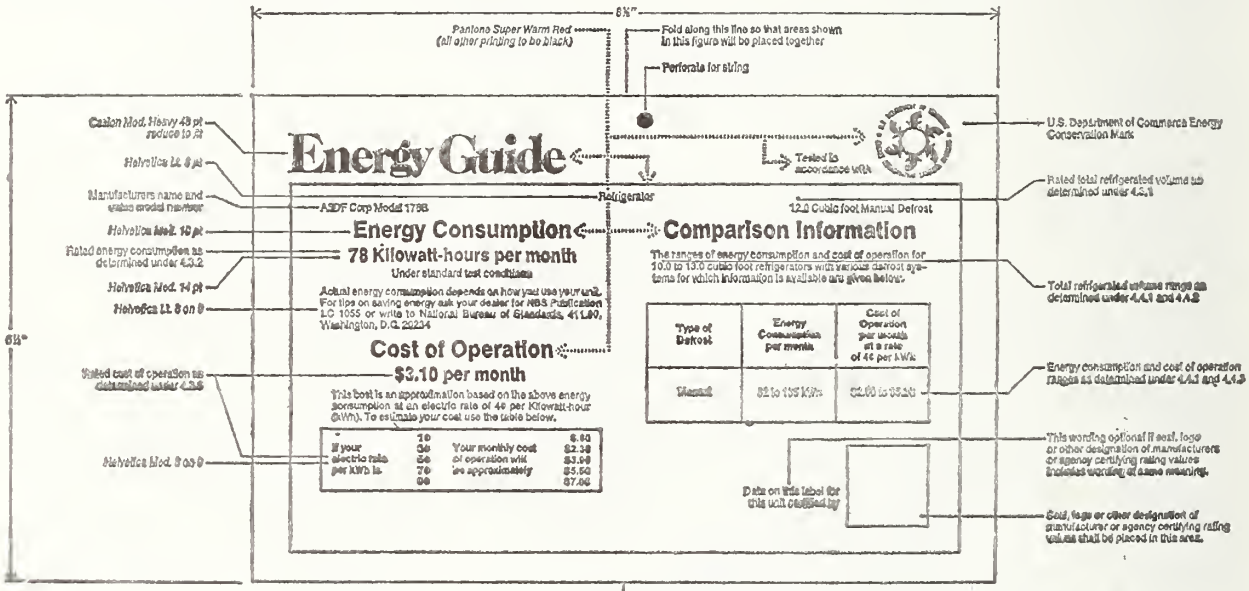


FIGURE I
Refrigerator

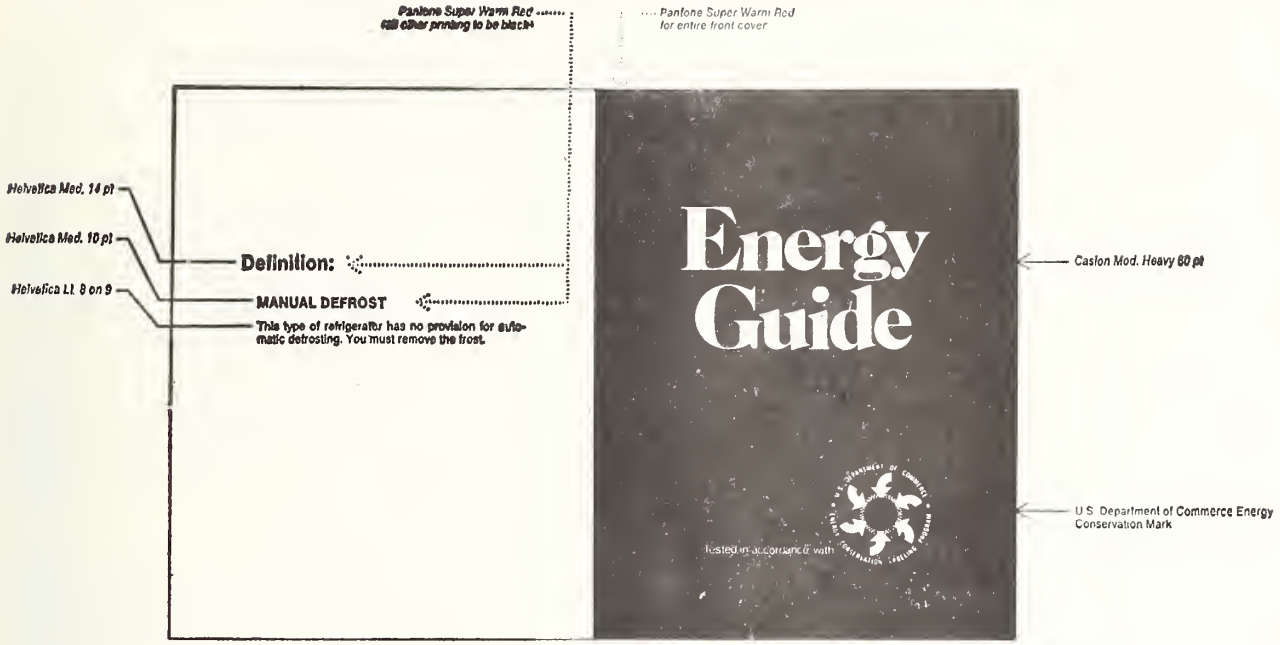


FIGURE 2
Refrigerator

VOLUNTARY ENERGY CONSERVATION SPECIFICATION 2-75, FOR REFRIGERATORS

APPENDIX A: TOTAL REFRIGERATED VOLUME, ENERGY CONSUMPTION, AND COST OF OPERATION RANGES

RATED TOTAL REFRIGERATED VOLUME IN CUBIC FEET	RANGES OF TOTAL REFRIGERATED VOLUME IN CUBIC FEET	RANGES OF ENERGY CONSUMPTION IN KILOWATT-HOURS PER MONTH FOR MODELS WITH MANUAL DEFROST	RANGES OF COST OF OPERATION IN DOLLARS PER MONTH AT A RATE OF 4¢ PER KILOWATT-HOUR FOR MODELS WITH MANUAL DEFROST
Less than 8.5	Less than 9.0	(To be determined)	(To be determined)
8.5 to less than 10.5	8.0 to 11.0		
10.5 to less than 12.5	10.0 to 13.0	62† to 135†	2.50† to 5.40†
12.5 to less than 14.5	12.0 to 15.0		
14.5 to less than 16.5	14.0 to 17.0		
16.5 and above	16.0 and above		

†These values are hypothetical and are used for the purpose of example only.

VOLUNTARY ENERGY CONSERVATION SPECIFICATION NO. 3–75, FOR COMBINATION REFRIGERATOR-FREEZERS

Sec.
1.0 Purpose.
2.0 Scope.
3.0 Definitions.
4.0 Product testing and rating.
5.0 Product labeling.
6.0 Use of program information by manufacturers in retail sales catalogs or in advertising.
7.0 Participation in program.
8.0 Termination of participation.
9.0 Use of program information by other than manufacturers.
10.0 Amendment.

Figures 1 and 2—Combination Refrigerator-Freezer Label.

Appendix A—Total refrigerated volume, energy consumption, and cost of operation ranges.

1.0 *Purpose.* The purpose of this Voluntary Energy Conservation Specification, hereinafter referred to as "Specification," is to establish procedures for testing and labeling combination refrigerator-freezers in compliance with the Procedures for a Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation (15 CFR Part 9) and to define requirements for participation by manufacturers in the Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation with regard to that product class.

2.0 *Scope. 2.1.* This Specification shall apply to the product class consisting of all combination refrigerator-freezers as defined in 3.4.

2.2. Combination refrigerator-freezers covered by this Specification shall be rated with respect to the following characteristics:

2.2.1 Total refrigerated volume as described in 4.3.1.

2.2.2 Energy consumption as described in 4.3.2.

2.2.3 Cost of operation as described in 4.3.3.

2.3. Values for energy consumption and cost of operation ranges for all combination refrigerator-freezers for which data are available are contained in Appendix A to this Specification. This appendix shall be updated and published in the FEDERAL REGISTER on an annual basis starting in February 1976. Copies of this appendix or updated versions thereof shall be provided by the Secretary to any interested party upon request.

3.0 *Definitions. 3.1.* The term "Secretary" means the Secretary of Commerce.

3.2. The term "manufacturer" means any person engaged in the manufacturing or assembling of combination refrigerator-freezers in the United States, or in the importing of such products for sale or resale, or any person whose brand or trademark appears on such products who owns such brand or trademark and has authorized its use on such product, if the brand or trademark of the person actually manufacturing or assembling the product does not appear on the product.

3.3. The term "Procedures" means Procedures for a Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation (15 CFR Part 9).

3.4. The term "combination refrigerator-freezer" means a cabinet which consists of two or more compartments, with at least one of the compartments designed for the refrigerated storage of foods at temperatures above 32°F and with at least one of the compartments designed for the freezing of and the storage of frozen foods at temperatures of 8°F or below. The source of refrigeration is driven by an electric motor.

3.5. The term "basic model group" means all combination refrigerator-freezers actually manufactured or assembled by one manufacturer and having the same rated total refrigerated volume and rated energy consumption. A basic model group may contain one or more members. Members of a basic model group may differ in details that do not affect total refrigerated volume or energy consumption as determined by the methods described in 4.1. Acceptable differences include, but are not limited to, variations in trim, color, sales model number, or brand name, or the presence of some special features such as ice makers and dispensers.

3.6. The term "defrost system" means the components and/or procedures by which frost is removed from refrigerated surfaces.

3.6.1. The term "partial automatic defrost" means a defrost system in which the defrosting action for the refrigerated surfaces in the refrigerator compartment is initiated and terminated automatically and the defrosting action for the refrigerated surfaces in the freezer compartment is initiated manually.

3.6.2. The term "automatic defrost" means a defrost system in which the defrosting action for all refrigerated surfaces is initiated and terminated automatically.

3.7. The term "anti-sweat heaters" means devices incorporated into the design of a combination refrigerator-freezer to prevent the accumulation of moisture on exterior surfaces of the cabinet under conditions of high ambient humidity.

3.8. The term "total refrigerated volume" means the total volume of all refrigerated compartments as measured and calculated in accordance with 4.1.1 and referred to in the standard referenced in 4.1.1. as "net refrigerated volume."

3.9. The term "cost of operation" means the approximate cost of the electric energy used in a month and is as determined in 4.3.3. It does not include such costs as repairs and depreciation.

3.10. The term "retail sales catalog" means a catalog that contains a description of one or more models of combination refrigerator-freezers, states the price of the model or models described, and from which consumers may make purchases by placing orders.

4.0 Product testing and rating. 4.1. Samples of combination refrigerator-freezers shall be tested by manufacturers or their agents in accordance with the following standards:

4.1.1. American National Standard B38.1–1970, Section 3.2, for computation of total refrigerated volume.

4.1.2. Association of Home Appliance Manufacturers Standard HRF–ECFT–1974 for measurement of energy consumption.

4.2. Samples of combination refrigerator-freezers shall be tested by manufacturers or their agents in accordance with the following requirements:

4.2.1. Unless otherwise required by the Secretary under 4.2.4, test results obtained in the testing of one member of a basic model group may be accepted as applicable to all members of that basic model group.

4.2.2. Sufficient units from each basic model group, that are representative of units to be produced, shall be tested according to the methods and procedures specified in 4.1 to provide a valid basis for determining ratings. Results of tests and calculations shall be retained as required under 7.4.

4.2.3. Manufacturers shall maintain such quality control programs, to include testing, as are necessary to insure that the performance of manufactured units is within the tolerances specified in 4.5. The use of national certification programs that are open to all manufacturers and that pertain to the performance characteristics listed on the label as a means of verifying the performance level is acceptable. Results of tests and calculations shall be retained as required under 7.4.

4.2.4. In addition to the testing required under 4.2.2 and 4.2.3, the Secretary may upon acquisition of adequate evidence of possible mislabeling request that one or more units of any specified model, selected at random from among recent production units, be tested by the manufacturer or his agent according to the methods and conditions specified in 4.1. Such testing shall be performed at the manufacturer's expense and the resulting test data and calculations shall be provided to the Secretary within 60 days of receipt by the manufacturer of such a request. This requirement does not preclude the Department of Commerce from testing or having tested at its own expense any combination refrigerator-freezer.

4.3. Ratings of combination refrigerator-freezers shall be as follows:

4.3.1. Total refrigerated volume shall be expressed in cubic feet and shall be based on the result of the measurement and computation called for in 4.1.1.

4.3.2. Energy consumption shall be expressed in Kilowatt-hours per month and shall be based on the result of energy consumption test or tests called for in 4.1.2, which provides a rating expressed in Kilowatt-hours per 24 hours, multiplied by 30 days per month and rounded to the nearest Kilowatt-hour per month.

4.3.3. Cost of operation shall be expressed in dollars per month and shall equal the rated energy consumption in

Kilowatt-hours per month multiplied by electric rates of 1, 3, 4, 5, 7, and 9 cents per Kilowatt-hour, these costs each rounded to the nearest one-tenth dollar per month.

4.4. Ranges of total refrigerated volume, energy consumption, and cost of operation for use on labels shall be as follows:

4.4.1. Ranges shall be taken from the version of Appendix A in effect at the time the labels are applied, except that labels applied within a 90 day period following a revision of Appendix A need not be replaced with labels showing the new ranges.

4.4.2. The total refrigerated volume range shown on a label shall be taken from the appropriate line of Appendix A as determined by the rated total refrigerated volume of the model to be labeled. For example, if the model to be labeled has a rated total refrigerated volume of 16.0 cubic feet, the total refrigerated volume range used on the label for that model shall be 14.0 to 17.0 cubic feet.

4.4.3. The energy consumption and cost of operation ranges shown on a label shall be taken from the appropriate line of Appendix A as determined by the total refrigerated volume of the model to be labeled. The energy consumption and cost of operation ranges for combination refrigerator-freezers with all defrost systems available in this volume range shall be shown on each label.

4.5. All members of a basic model group shall be held to be improperly rated and labeled if two units of that group are tested under 4.2.3 or 4.2.4 and the results of such tests on both units fall outside the following limits:

4.5.1. The value for total refrigerated volume shall not be less than 98.5 percent of the value shown on the label.

4.5.2. The value for energy consumption shall not be greater than 110 percent of the value shown on the label.

4.5.3. The values for cost of operation shall be accurate to the nearest one-tenth dollar per month.

5.0 Product labeling. 5.1. The design of labels shall be as shown in Figures 1 and 2 at the end of this Specification. Except as provided in 5.1.2 through 5.1.7, no marks or information other than that indicated in Figures 1 and 2 shall be placed within the border of the label and the size of labels and sizes of type shall be as shown in Figures 1 and 2 or a proportional enlargement of the sizes indicated.

5.1.2. For models having a switch allowing user control of the anti-sweat heaters, energy consumption and cost of operation ratings for both the "anti-sweat heaters off" and "anti-sweat heaters on" conditions shall be shown. Values for the "anti-sweat heaters off" condition shall be positioned first and shall be marked with an asterisk as follows: 123* to 138 Kilowatt-hours per month, $5.00* to $5.50 per month. Two columns of cost of operation values for electric rates of 1, 3, 5, 7, and 9 cents per kWh shall also be shown, with the values for the "anti-sweat heaters off" condition positioned first and marked with an asterisk. The following note shall be placed as indicated in Figure 1: *Values of energy consumption and cost of operation when anti-sweat heaters are switched off are identified by an asterisk, other values are with anti-sweat heaters switched on.

5.1.3. When the labeled refrigerator-freezer is equipped with an anti-sweat heater switch, the following should be added to the definitions shown in Figure 2 in the same style of lettering:

ANTI-SWEAT HEATERS

These are heaters built into the cabinet to prevent accumulation of moisture on the outer surface under humid conditions.

5.1.4. The type of defrost system, energy consumption range, and cost of operation range as determined under 4.4.1 and 4.4.3 and as specified in Appendix A for refrigerator-freezers in the volume range relating to the labeled unit shall be shown as indicated in Figure 1.

5.1.5. The definition of each type of defrost system as specified in 5.1.4. shall be given on the label as indicated in Figure 2 and shall be as stated below:

AUTOMATIC DEFROST

This is a system that automatically removes all frost as it forms. You never have to defrost. Some manufacturers use other names for this system.

PARTIAL AUTOMATIC DEFROST

With refrigerator-freezers of this type you must manually defrost your freezer but your refrigerator is automatically defrosted. Some manufacturers use other names for this system.

5.1.6. Minor variations in the appearance of labels, that may be required for computerized printing techniques, may be requested by application to the Assistant Secretary for Science and Technology, U.S. Department of Commerce, Room 3862, Washington, D.C. 20230. Such variations shall be limited to changes in the type style or type size used to indicate values of ratings or ranges, model numbers, or other label elements that change from model to model. Applications for change shall include an example of the proposed change.

5.1.7. When two or more models having the same brand name have identical ratings, more than one model number may be shown on the label. The size of the label may be increased to accommodate such additional model number listings.

5.1.8. Labels shall be printed on both sides of white stock. The areas so indicated in Figures 1 and 2 shall be printed in *Pantone Super Warm Red.* The seal or logotype of the certifying agency shall be printed in any legible color or colors. All other printing shall be in black.

5.1.9. Camera-ready art suitable for printing the labels, but not including numerical ratings, model numbers, or the seal, logo, or other designation of the certifying agency, shall be provided by the Secretary to any manufacturer upon request. Actual labels shall be accurate reproductions of this art.

5.2. Combination refrigerator-freezers shall be labeled as follows:

5.2.1. Labels shall be folded as indicated in Figure 1 and hung as a tag on the front of a shelf in the refrigerator compartment or from the inside of the refrigerator compartment door at a height from the floor of four feet or as close to four feet as is practicable.

5.2.2. Labels shall appear clearly distinct from any other information supplied or displayed by the manufacturer so that the Department of Commerce Energy Conservation Mark on the label cannot reasonably be associated with such other information.

5.2.3. If any model of a given brand of combination refrigerator-freezer is labeled, then every model of that brand shall be labeled. However, these requirements shall not apply to units intended for export or units manufactured prior to the manufacturer's entry into the program.

5.2.4. For individual units manufactured and packaged prior to a manufacturer's entry into this program, manufacturers are encouraged to hang appropriate labels, distribute appropriate labels to retailers to be attached to floor display models or other models, or provide point-of-purchase displays as described in 6.4. The manufacturer need not assume responsibility for assuring individual label attachment or use of point-of-purchase displays at retail outlets under the provisions of this subsection.

6.0 Use of program information by manufacturers in retail sales catalogs or in advertising. 6.1. For each labeled model listed in a retail sales catalog, the listing shall be in the form of a reproduction of the label shown in Figure 1 or in any other format or arrangement that shall present all of the information shown in that Figure. The required information for one or more models may be presented in a table or tables.

6.2. For each labeled model listed in a retail sales catalog, the total refrigerated volume, energy consumption, and cost of operation ranges shown in the catalog shall be determined as follows:

6.2.1. The ranges shall be taken from the version of Appendix A in effect 90 days before the press date of the catalog or from a later version of Appendix A if it can be utilized before the press date of such catalog.

6.2.2. The ranges shall be taken from the appropriate version of Appendix A using the procedures described in 4.4.2 and 4.4.3.

6.3. When labeled models are listed in retail sales catalogs, the catalog section in which the models are listed shall contain an explanation of how cost of operation can be calculated and a reproduction of the Department of Commerce Energy Conservation Mark.

6.4. Legible reproductions of that portion of the label shown in Figure 1, in any size, may be used on the product, on packaging, in point-of-purchase displays, or in other advertising applications, but such use shall not be a substitute for required labeling.

6.5. For a given model, when the energy consumption rating as determined in 4.3.2 and the cost of operation rating at 4 cents per Kilowatt-hour as determined in 4.3.3 are less than the lower limit of the appropriate energy consumption and cost of operation ranges as determined in 4.4.3 for labels or 6.2 for use in retail sales catalogs, manufacturers are encouraged to utilize this fact in their advertising of that model. This condition could result from introduction of a new or improved model, and in such case would persist until new energy consumption and cost of operation ranges had been issued.

7.0 Participation in program. 7.1. Manufacturers wishing to participate in the Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation with regard to combination refrigerator-freezers shall notify the Department of Commerce of intended participation. Such notification should be addressed to the Assistant Secretary for Science and Technology, U.S. Department of Commerce, Room 3862, Washington, D.C. 20230. Approval for participation by any manufacturer is automatically granted upon this notification to the Department, provided that the conditions for participation as set forth in the Procedures and in this Specification are observed. Receipt of such notification will be acknowledged.

7.2. A manufacturer's notice of participation shall include the following information:

7.2.1. A statement that the tests and calculations called for under 4.0 will be completed as required and that the manufacturer certifies the accuracy, within the tolerances prescribed under 4.5, of ratings as shown on labels.

7.2.2. A listing of all models to be labeled including an indication of the grouping of sales models into basic model groups. All appropriate models as defined in 5.2.3 shall be included.

7.2.3. A statement that the manufacturer will desist from using the labels and the Department of Commerce Energy Conservation Mark if the manufacturer's participation in the program is terminated by the Department of Commerce under the provisions of 8.2.

7.2.4. The effective date of the manufacturer's entry into the program.

7.2.5. A statement that a listing of total refrigerated volume, energy consumption, and cost of operation at 4¢ per Kilowatt-hour ratings for all models to be labeled will be provided to the Secretary within 90 days after the date of the manufacturer's notice of participation. Such listing may be made in whole or in part by reference to readily available listings of certified combination refrigerator-freezers.

7.3. When a manufacturer's listing of combination refrigerator-freezer models to be labeled as required under 7.2.2 or his listing of total refrigerated volume, energy consumption, or cost of operation ratings as required under 7.2.5 is changed by the addition or deletion of models or changes in model designations or ratings, or if the manufacturer terminates his participation in the program with respect to combination refrigerator-freezers of a given brand name, the manufacturer or his agent shall notify the Secretary within 30 days.

7.4. Manufacturers or their agents shall maintain files of test results and calculations on which ratings are based and files of test results and calculations used to verify that the performance of manufactured units is within the tolerances specified in 4.5. Data relating to a given model shall be preserved for a period of two years after production of that model has been terminated, and if requested shall be provided to the Secretary within 30 days of such request.

7.5. Manufacturers or their agents shall transmit required information to the Secretary in concise and readily understandable form. For this purpose copies of appropriate lists and reports used for other purposes, as for example, reports submitted by a manufacturer to the sponsor of a nationally recognized certification program, or reports submitted by an independent testing laboratory to such a sponsor or a manufacturer, shall be acceptable.

7.6. Should any labeled combination refrigerator-freezer be tested and found to be improperly rated and labeled as described in 4.5, the manufacturer shall within 30 days give notice of non-compliance and a statement of revised ratings in writing to the Secretary and to all distributors or others in the line of distribution who are responsible for sales to dealers or other retail outlets. He shall also arrange to have corrected labels available for substitution on models currently on display at retail outlets and for those placed on display at a later date, and shall see that such outlets are notified through his normal channels of distribution.

8.0 Termination of participation. 8.1. A manufacturer may at any time terminate his participation and responsibilities under the program with respect to combination refrigerator-freezers of a given brand name by giving written notice to the Secretary that he will discontinue or has discontinued use of the labels on all combination refrigerator-freezers of that brand name. Such notice shall state the effective date of the manufacturer's termination of participation.

8.2. The Department of Commerce, upon finding that a manufacturer is not complying with the conditions for participation set forth in this Specification and in the Procedures may terminate upon 30 days notice the manufacturer's participation in the program: *Provided,* That the manufacturer shall first be given an opportunity to show cause why the participation should not be terminated.

8.3. Upon receipt of a notice of termination a manufacturer may within 30 days request a hearing under the provisions of 5 U.S.C. 558.

9.0 Use of program information by other than manufacturers. 9.1. Retail sales organizations that are not manufacturers as defined in 3.2, that sell combination refrigerator-freezers labeled under this program, and have received appropriate and accurate program information from manufacturers or the Secretary, are specifically encouraged to utilize program information in their sales efforts in the manner prescribed in 9.2.

9.2. Appropriate activities for non-manufacturers include the following:

9.2.1. Use of total refrigerated volume ratings and ranges, energy consumption ratings and ranges, cost of operation at 4¢ per kilowatt-hour ratings and ranges, explanations of how cost of operation can be calculated, and reproduction of the Department of Commerce Energy Conservation Mark, under the guidelines described in 6.1, 6.2, and 6.3, in retail sales catalogs.

9.2.2. Affixing of labels or appropriate use of point-of-purchase displays, provided by manufacturers under 5.2.4, in sales areas.

9.2.3. Use of reproductions of labels, in the manner described in 6.4, in advertising.

9.2.4. Advertising of instances where the energy consumption and cost of operation ratings of a given model are less than the lower limit of the appropriate energy consumption and cost of operation ranges, as described under 6.5.

9.2.5. Distribution of program information provided by the Department of Commerce. Program information may be obtained from the National Bureau of Standards, 411.00, Washington, D.C. 20234.

10.0 Amendment. This specification is subject to amendment as provided in section 9.8 of the Procedures, except that Appendix A of this Specification may be updated and published in the FEDERAL REGISTER annually as described in 2.3 of this Specification without first publishing notice of the proposed change in the FEDERAL REGISTER.

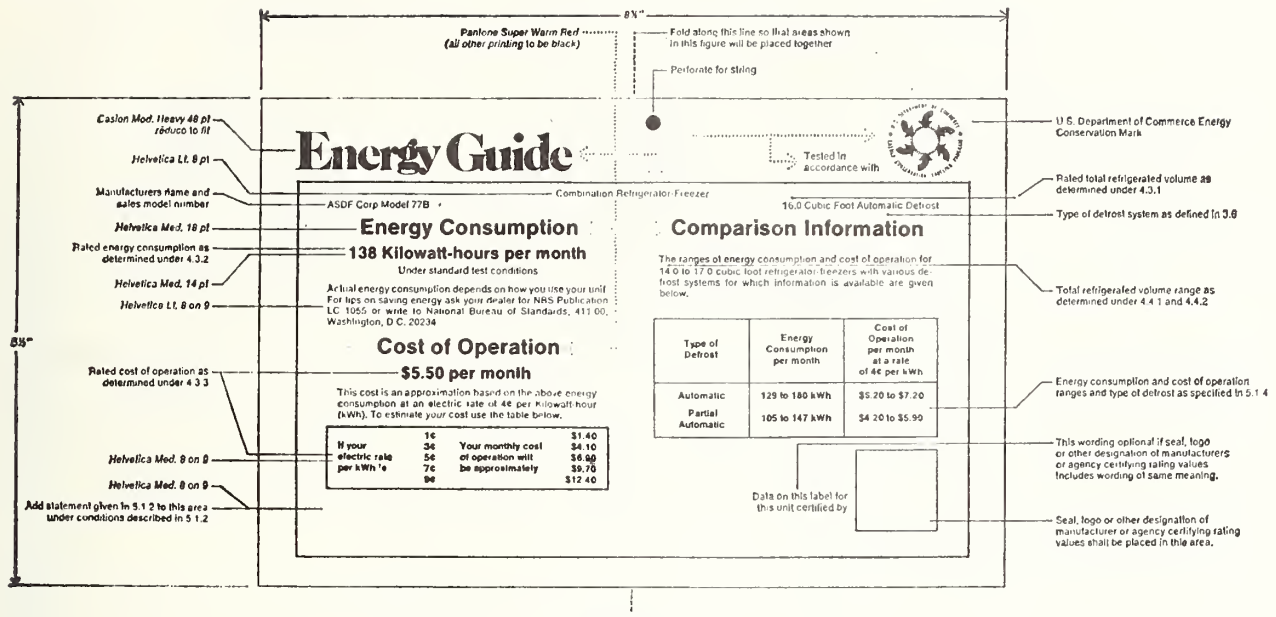


FIGURE 1
Combination Refrigerator-Freezer

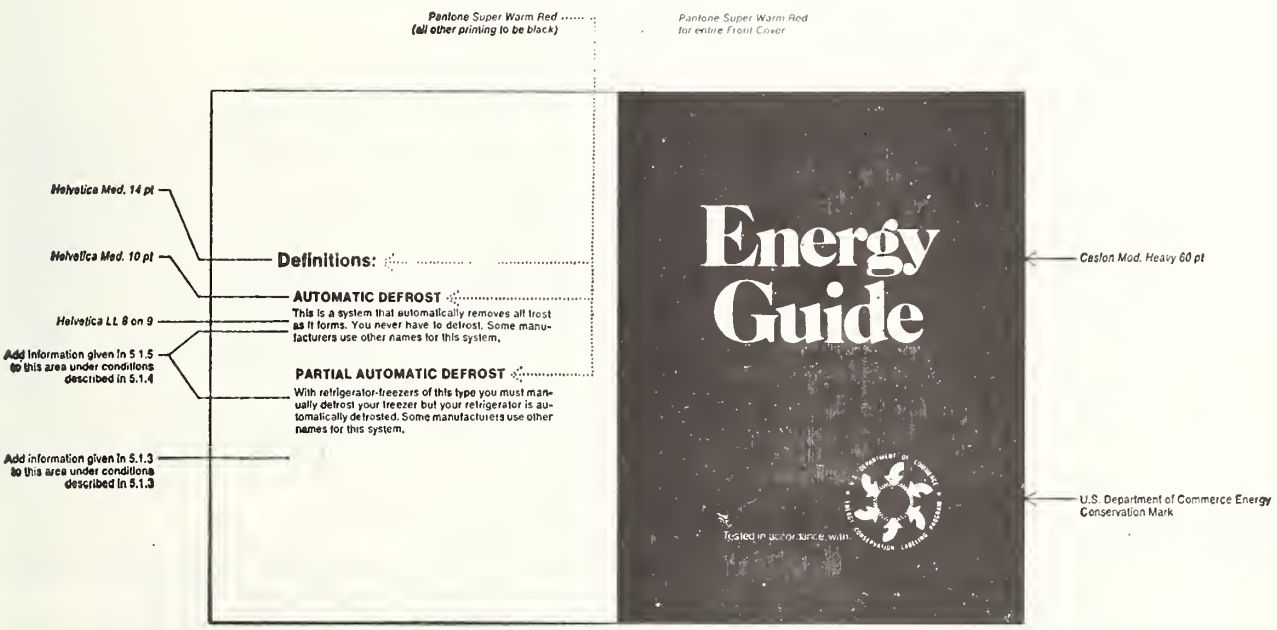


FIGURE 2
Combination Refrigerator-Freezer

VOLUNTARY ENERGY CONSERVATION SPECIFICATION 3-75, FOR COMBINATION REFRIGERATOR-FREEZERS

APPENDIX A: TOTAL REFRIGERATED VOLUME, ENERGY CONSUMPTION, AND COST OF OPERATION RANGES

RATED TOTAL REFRIGERATED VOLUME IN CUBIC FEET	RANGES OF TOTAL REFRIGERATED VOLUME IN CUBIC FEET	RANGES OF ENERGY CONSUMPTION IN KILOWATT-HOURS PER MONTH FOR MODELS WITH		RANGES OF COST OF OPERATIONS IN DOLLARS PER MONTH AT A RATE OF 4¢ PER KILOWATT-HOUR FOR MODELS WITH	
		PARTIAL AUTOMATIC DEFROST	AUTOMATIC DEFROST	PARTIAL AUTOMATIC DEFROST	AUTOMATIC DEFROST
Less than 10.5	Less than 11.0				
10.5 to less than 12.5	10.0 to 13.0	(To be determined)	(To be determined)	(To be determined)	(To be determined)
12.5 to less than 14.5	12.0 to 15.0				
14.5 to less than 16.5	14.0 to 17.0	105† to 147†	129† to 180†	4.20† to 5.90†	5.20† to 7.20†
16.5 to less than 18.5	16.0 to 19.0				
18.5 to less than 20.5	18.0 to 21.0				
20.5 to less than 22.5	20.0 to 23.0				
22.5 to less than 24.5	22.0 to 25.0				
24.5 and above	24.0 and above				

Values of energy consumption and cost of operation are determined with anti-sweat heaters fully energized.

†These values are hypothetical and are used for the purpose of example only.

VOLUNTARY ENERGY CONSERVATION SPECIFICATION NO. 4-75, FOR FREEZERS

Sec.

1.0 Purpose.
2.0 Scope.
3.0 Definitions.
4.0 Product testing and rating.
5.0 Product labeling.
6.0 Use of program information by manufacturers in retail sales catalogs or in advertising.
7.0 Participation in program.
8.0 Termination of participation.
9.0 Use of program information by other than manufacturers.
10.0 Amendment.

Figures 1 and 2—Freezer label.
Appendix A—Total refrigerated volume, energy consumption, and cost of operation ranges.

1.0 Purpose. The purpose of this Voluntary Energy Conservation Specification, hereinafter referred to as "Specification," is to establish procedures for testing and labeling freezers in compliance with the Procedures for a Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation (15 CFR Part 9) and to define requirements for participation by manufacturers in the Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation with regard to that product class.

2.0 Scope. 2.1. This Specification shall apply to the product class consisting of all freezers as defined in 3.4.

2.2. Freezers covered by this Specification shall be rated with respect to the following characteristics:

2.2.1 Total refrigerated volume as described in 4.3.1.

2.2.2 Energy consumption as described in 4.3.2.

2.2.3 Cost of operation as described in 4.3.3.

2.3. Values for energy consumption and cost of operation ranges for all freezers for which data are available are contained in Appendix A to this Specification. This appendix shall be updated and published in the FEDERAL REGISTER on an annual basis starting in February 1976. Copies of this appendix or updated versions thereof shall be provided by the Secretary to any interested party upon request.

3.0 Definitions. 3.1. The term "Secretary" means the Secretary of Commerce.

3.2. The term "manufacturer" means any person engaged in the manufacturing or assembling of freezers in the United States, or in the importing of such products for sale or resale, or any person whose brand or trademark appears on such products who owns such brand or trademark and has authorized its use on such product, if the brand or trademark of the person actually manufacturing or assembling the product does not appear on the product.

3.3. The term "Procedures" means Procedures for a Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation (15 CFR Part 9).

3.4. The term "freezer" means a cabinet designed as a unit for the storage of food at temperatures of about 0° F, having the ability to freeze food, and having a source of refrigeration driven by an electric motor.

3.5. The term "basic model group" means all freezers actually manufactured or assembled by one manufacturer and having the same rated total refrigerated volume and rated energy consumption. A basic model group may contain one or more members. Members of a basic model group may differ in details that do not affect total refrigerated volume or energy consumption as determined by the methods described in 4.1. Acceptable differences include, but are not limited to, variations in trim, color, sales model number, or brand name, or the presence of some special features such as ice makers and dispensers.

3.6. The term "defrost system" means the components and/or procedures by which frost is removed from refrigerated surfaces.

3.6.1. The term "manual defrost" means a defrost system in which the defrosting action for all refrigerated surfaces is initiated manually.

3.6.2. The term "automatic defrost" means a defrost system in which the defrosting action for all refrigerated surfaces is initiated and terminated automatically.

3.7. The term "anti-sweat heaters" means devices incorporated into the design of a freezer to prevent the accumulation of moisture on exterior surfaces of the cabinet under conditions of high ambient humidity.

3.8. The term "total refrigerated volume" means the total volume of all refrigerated compartments as measured

and calculated in accordance with 4.1.1 and referred to in the standard referenced in 4.1.1 as "net refrigerated volume."

3.9. The term "cost of operation" means the approximate cost of the electric energy used in a month and is as determined in 4.3.3. It does not include such costs as repairs and depreciation.

3.10. The term "retail sales catalog" means a catalog that contains a description of one or more models of freezers, states the price of the model or models described, and from which consumers may make purchases by placing orders.

4.0 Product testing and rating. 4.1. Samples of freezers shall be tested by manufacturers or their agents in accordance with the following standards:

4.1.1. American National Standard B38.1–1970, Section 4.2, for computation of total refrigerated volume.

4.1.2. Association of Home Appliance Manufacturers Standard HRF–2–ECFT–1974 for measurement of energy consumption.

4.2. Samples of freezers shall be tested by manufacturers or their agents in accordance with the following requirements:

4.2.1. Unless otherwise required by the Secretary under 4.2.4, test results obtained in the testing of one member of a basic model group, may be accepted as applicable to all members of that basic model group.

4.2.2. Sufficient units from each basic model group, that are representative of units to be produced, shall be tested according to the methods and procedures specified in 4.1 to provide a valid basis for determining ratings. Results of tests and calculations shall be retained as required under 7.4.

4.2.3. Manufacturers shall maintain such quality control programs, to include testing, as are necessary to insure that the performance of manufactured units is within the tolerances specified in 4.5. The use of national certification programs that are open to all manufacturers and that pertain to the performance characteristics listed on the label as a means for verifying the performance level is acceptable. Results of tests and calculations shall be retained as required under 7.4.

4.2.4. In addition to the testing required under 4.2.2 and 4.2.3, the Secretary may upon acquisition of adequate evidence of possible mislabeling request that one or more units of any specified model, selected at random from among recent production units, be tested by the manufacturer or his agent according to the methods and conditions specified in 4.1. Such testing shall be performed at the manufacturer's expense and the resulting test data and calculations shall be provided to the Secretary within 60 days of receipt by the manufacturer of such a request. This requirement does not preclude the Department of Commerce from testing or having tested at its own expense any freezer.

4.3. Ratings of freezers shall be as follows:

4.3.1. Total refrigerated volume shall be expressed in cubic feet and shall be based on the result of the measurement and computation called for in 4.1.1.

4.3.2. Energy consumption shall be expressed in Kilowatt-hours per month and shall be based on the result of the energy consumption test called for in 4.1.2, multiplied by 0.9, which provides a rating expressed in Kilowatt-hours per 24 hours, multiplied by 30 days per month and rounded to the nearest Kilowatt-hour per month.

4.3.3. Cost of operation shall be expressed in dollars per month and shall equal the rated energy consumption in Kilowatt-hours per month multiplied by electric rates of 1, 3, 4, 5, 7, and 9 cents per Kilowatt-hour, these costs each rounded to the nearest one-tenth dollar per month.

4.4. Ranges of total refrigerated volume, energy consumption, and cost of operation for use on labels shall be as follows:

4.4.1. Ranges shall be taken from the version of Appendix A in effect at the time the labels are applied, except that labels applied within a 90 day period following a revision of Appendix A need not be replaced with labels showing the new ranges.

4.4.2. The total refrigerated volume range shown on a label shall be taken from the appropriate line of Appendix A as determined by the rated total refrigerated volume of the model to be labeled. For example, if the model to be labeled has a rated total refrigerated volume of 15.3 cubic feet, the total refrigerated volume range used on the label for that model shall be 13.0 to 18.0 cubic feet.

4.4.3 The energy consumption and cost of operation ranges shown on a label shall be taken from the appropriate line of Appendix A as determined by the total refrigerated volume of the model to be labeled. The energy consumption and cost of operation ranges for freezers with all defrost systems available in this volume range shall be shown on each label.

4.5. All members of a basic model group shall be held to be improperly rated and labeled if two units of that group are tested under 4.2.3 or 4.2.4 and the results of such tests on both units fall outside the following limits:

4.5.1. The value for total refrigerated volume shall not be less than 98.5 percent of the value shown on the label.

4.5.2. The value for energy consumption shall not be greater than 110 percent of the value shown on the label.

4.5.3. The values for cost of operation shall be accurate to the nearest one-tenth dollar per month.

5.0 Product labeling 5.1. The design of labels shall be as follows:

5.1.1. The design of labels shall be as shown in Figures 1 and 2 at the end of this Specification. Except as provided in 5.1.2 through 5.1.7, and in 5.2.1, no marks or information other than that indicated in Figures 1 and 2 shall be placed within the border of the label and the size of labels and sizes of type shall be as shown in Figures 1 and 2 or a proportional enlargement of the sizes indicated.

5.1.2. For models having a switch allowing user control of the anti-sweat heaters, energy consumption and cost of operation ratings for both the "anti-sweat heaters off" and "anti-sweat heaters on" conditions shall be shown. Values for the "anti-sweat heaters off" condition shall be positioned first and shall be marked with an asterisk as follows: 157* to 177 Kilowatt-hours per month, $6.30* to $7.10 per month. Two columns of cost of operation values for electric rates of 1, 3, 5, 7, and 9 cents per kWh shall also be shown, with the values for the "anti-sweat heaters off" condition positioned first and marked with an asterisk. The following note shall be placed as indicated in Figure 1: * Values of energy consumption and cost of operation when anti-sweat heaters are switched off are identified by an asterisk, other values are with anti-sweat heaters switched on.

5.1.3. When the labeled freezer is equipped with an anti-sweat heater switch, the following should be added to the definitions shown in Figure 2 in the same style of lettering:

ANTI-SWEAT HEATERS

These are heaters built into the cabinet to prevent accumulation of moisture on the outer surface under humid conditions.

5.1.4. The type of defrost system, energy consumption range, and cost of operation range as determined under 4.4.1 and 4.4.3 and as specified in Appendix A for freezers in the volume range relating to the labeled unit shall be shown as indicated in Figure 1.

5.1.5. The definition of each type of defrost system as specified in 5.1.4 shall be given on the label as indicated in Figure 2 and shall be as stated below:

AUTOMATIC DEFROST

This is a system that automatically removes all frost as it forms. You never have to defrost. Some manufacturers use other names for this system.

MANUAL DEFROST

This type of freezer has no provision for automatic defrosting. You must remove the frost.

5.1.6. Minor variations in the appearance of labels, that may be required for computerized printing techniques, may be requested by application to the Assistant Secretary for Science and Technology, U.S. Department of Commerce, Room 3862, Washington, D.C. 20230. Such variations shall be limited to changes in the type style or type size used to indicate values of ratings or ranges, model numbers, or other label elements that change from model to model. Applications for change shall include an example of the proposed change.

5.1.7. When two or more models having the same brand name have identical ratings, more than one model number may be shown on the label. The size of the label may be increased to accommodate such additional model number listings.

5.1.8. Labels shall be printed on both sides of white stock. The areas so indicated on Figures 1 and 2 shall be printed

in *Pantone Super Warm Red*. The seal or logotype of the certifying agency shall be printed in any legible color or colors. All other printing shall be in black.

5.1.9. Camera-ready art suitable for printing the labels, but not including numerical ratings, model numbers, or the seal, logo, or other designation of the certifying agency, shall be provided by the Secretary to any manufacturer upon request. Actual labels shall be accurate reproductions of this art.

5.2 Freezers shall be labeled as follows:

5.2.1. Labels for upright freezers shall be folded as indicated in Figure 1 and hung as a tag on the front of a shelf in the freezer compartment or from the inside of the freezer compartment door at a height from the floor of four feet or as close to four feet as is practicable. Labels for chest type freezers shall be folded as indicated in Figure 1 and hung as a tag to the inside of the lid in such a manner as to be easily read without detaching. For chest type freezers on which the door opens 75° or more, the label may consist only of that portion shown in Figure 1 and may be attached to the inside of the lid with adhesive.

5.2.2. Labels shall appear clearly distinct from any other information supplied or displayed by the manufacturer so that the Department of Commerce Energy Conservation Mark on the label cannot reasonably be associated with such other information.

5.2.3. If any model of a given brand of freezer is labeled, then every model of that brand shall be labeled. However, these requirements shall not apply to units intended for export or units manufactured prior to the manufacturer's entry into the program.

5.2.4. For individual units manufactured and packaged prior to a manufacturer's entry into this program, manufacturers are encouraged to hang appropriate labels, distribute appropriate labels to retailers to be attached to floor display models or other models, or provide point-of-purchase displays as described in 6.4. The manufacturer need not assume responsibility for assuring individual label attachment or use of point-of-purchase displays at retail outlets under the provisions of this subsection.

6.0 Use of program information by by manufacturers in retail sales catalogs or in advertising. 6.1. For each labeled model listed in a retail sales catalog, the listing shall be in the form of a reproduction of the label shown in Figure 1 or in any other format or arrangement that shall present all of the information shown in that figure. The required information for one or more models may be presented in a table or tables.

6.2. For each labeled model listed in a retail sales catalog, the total refrigerated volume, energy consumption, and cost of operation ranges shown in the catalog shall be determined as follows:

6.2.1. The ranges shall be taken from the version of Appendix A in effect 90 days before the press date of the catalog or from a later version of Appendix A if it can be utilized before the press date of such catalog.

6.2.2. The ranges shall be taken from the appropriate version of Appendix A using the procedures described in 4.4.2 and 4.4.3.

6.3. When labeled models are listed in retail sales catalogs, the catalog section in which the models are listed shall contain an explanation of how cost of operation can be calculated and a reproduction of the Department of Commerce Energy Conservation Mark.

6.4. Legible reproductions of that portion of the label shown in Figure 1, in any size, may be used on the product, on packaging, in point-of-purchase displays, or in other advertising applications, but such use shall not be a substitute for required labeling.

6.5. For a given model, when the energy consumption rating as determined in 4.3.2 and the cost of operation rating at 4¢ per Kilowatt-hour as determined in 4.3.3 are less than the lower limit of the appropriate energy consumption and cost of operation ranges as determined in 4.4.3 for labels or 6.2 for use in retail sales catalogs, manufacturers are encouraged to utilize this fact in their advertising of that model. This condition could result from introduction of a new or improved model, and in such case would persist until new energy consumption and cost of operation ranges had been issued.

7.0 Participation in program. 7.1. Manufacturers wishing to participate in the Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation with regard to freezers shall notify the Department of Commerce of intended participation. Such notification should be addressed to the Assistant Secretary for Science and Technology, U.S. Department of Commerce, Room 3862, Washington, D.C. 20230. Approval for participation by any manufacturer is automatically granted upon this notification of the Department, provided that the conditions for participation as set forth in the Procedures and in this Specification are observed. Receipt of such notification will be acknowledged.

7.2. A manufacturer's notice of participation shall include the following information:

7.2.1. A statement that the tests and calculations called for under 4.0 will be completed as required and that the manufacturer certifies the accuracy, within the tolerances prescribed under 4.5, of ratings as shown on labels.

7.2.2. A listing of all models to be labeled including an indication of the grouping of sales models into basic model groups. All appropriate models as defined in 5.2.3 shall be included.

7.2.3. A statement that the manufacturer will desist from using the labels and the Department of Commerce Energy Conservation Mark if the manufacturer's participation in the program is terminated by the Department of Commerce under the provisions of 8.2.

7.2.4. The effective date of the manufacturer's entry into the program.

7.2.5. A statement that a listing of total refrigerated volume, energy consumption, and cost of operation at 4¢ per Kilowatt-hour, ratings for all models to be labeled will be provided to the Secretary within 90 days after the date of the manufacturer's notice of participation. Such listing may be made in whole or in part by reference to readily available listings of certified freezers.

7.3. When a manufacturer's listing of freezer models to be labeled as required under 7.2.2 or his listing of total refrigerated volume, energy consumption, or cost of operation ratings as required under 7.2.5 is changed by the addition or deletion of models or changes in model designations or ratings, or if the manufacturer terminates his participation in the program with respect to freezers of a given brand name, the manufacturer or his agent shall notify the Secretary within 30 days.

7.4. Manufacturers or their agents shall maintain files of test results and calculations on which ratings are based and files of test results and calculations used to verify that the performance of manufactured units is within the tolerances specified in 4.5. Data relating to a given model shall be preserved for a period of two years after production of that model has been terminated, and if requested shall be provided to the Secretary within 30 days of such request.

7.5. Manufacturers or their agents shall transmit required information to the Secretary in concise and readily understandable form. For this purpose copies of appropriate lists and reports used for other purposes, as for example, reports submitted by a manufacturer to the sponsor of a nationally recognized certification program, or reports submitted by an independent testing laboratory to such a sponsor or a manufacturer, shall be acceptable.

7.6. Should any labeled freezer be tested and found to be improperly rated and labeled as described in 4.5, the manufacturer shall within 30 days give notice of non-compliance and a statement of revised ratings in writing to the Secretary and to all distributors or others in the line of distribution who are responsible for sales to dealers or other retail outlets. He shall also arrange to have corrected labels available for substitution on models currently on display at retail outlets and for those placed on display at a later date, and shall see that such outlets are notified through his normal channels of distribution.

8.0 Termination of participation. 8.1. A manufacturer may at any time terminate his participation and responsibilities under the program with respect to freezers of a given brand name by giving written notice to the Secretary that he will discontinue or has discontinued use of the labels on all freezers of that brand name. Such notice shall state the effective date of the manufacturer's termination of participation.

8.2. The Department of Commerce upon finding that a manufacturer is not complying with the conditions for participation set forth in this Specification

and in the Procedures may terminate upon 30 days notice the manufacturer's participation in the program: *Provided,* that the manufacturer shall first be given an opportunity to show cause why the participation should not be terminated.

8.3. Upon receipt of a notice of termination a manufacturer may within 30 days request a hearing under the provisions of 5 U.S.C. 558.

9.0 Use of program information by other than manufacturers. 9.1. Retail sales organizations that are not manufacturers as defined in 3.2, that sell freezers labeled under this program, and have received appropriate and accurate program information from manufacturers or the Secretary, are specifically encouraged to utilize program information in their sales efforts in the manner prescribed in 9.2.

9.2. Appropriate activities for non-manufacturers include the following:

9.2.1. Use of total refrigerated volume ratings and ranges, energy consumption ratings and ranges, cost of operation at 4¢ per Kilowatt-hour ratings and ranges, explanations of how cost of operation can be calculated, and reproduction of the Department of Commerce Energy Conservation Mark, under the guidelines described in 6.1, 6.2, and 6.3, in retail sales catalogs.

9.2.2. Affixing of labels or appropriate use of point-of-purchase displays, provided by manufacturers under 5.2.4, in sales areas.

9.2.3. Use of reproductions of labels, in the manner described in 6.4, in advertising.

9.2.4. Advertising of instances where the energy consumption and cost of operation ratings of a given model are less than the lower limit of the appropriate energy consumption and cost of operation ranges, as described under 6.5.

9.2.5. Distribution of program information provided by the Department of Commerce. Program information may be obtained from the National Bureau of Standards, 411.00, Washington, D.C. 20234.

10.0 Amendment. This Specification is subject to amendment as provided in Section 9.8 of the Procedures, except that Appendix A of this Specification may be updated and published in the FEDERAL REGISTER annually as described in 2.3 of this Specification without first publishing notice of the proposed change in the FEDERAL REGISTER.

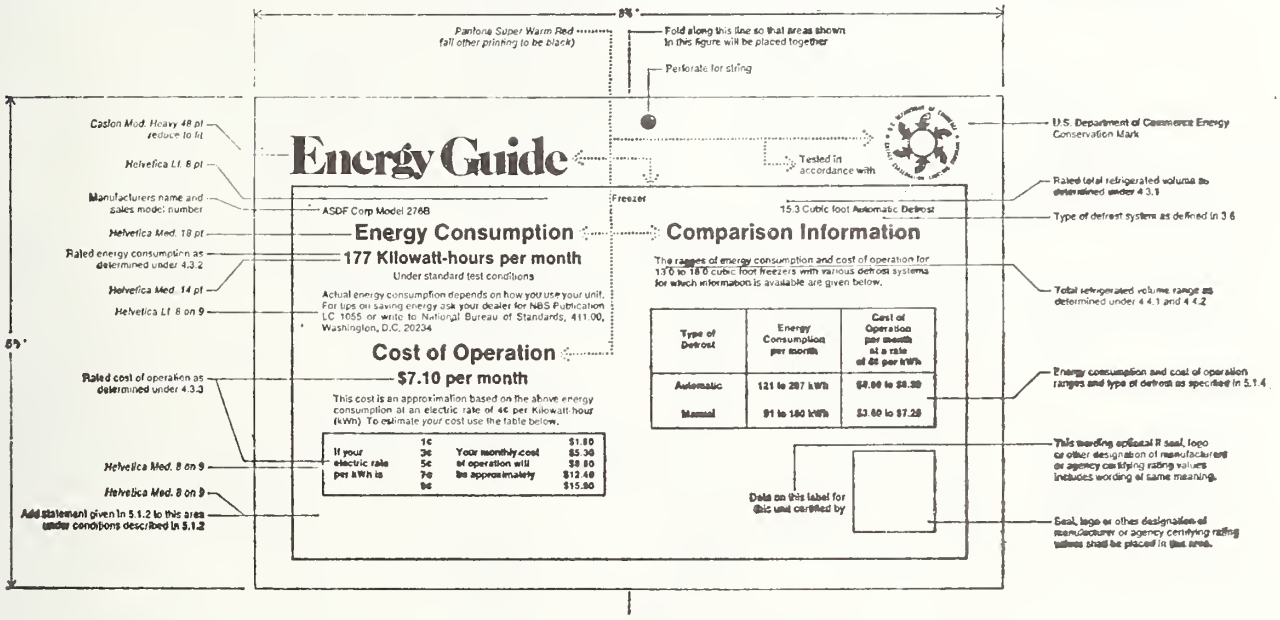


FIGURE 1
Freezer

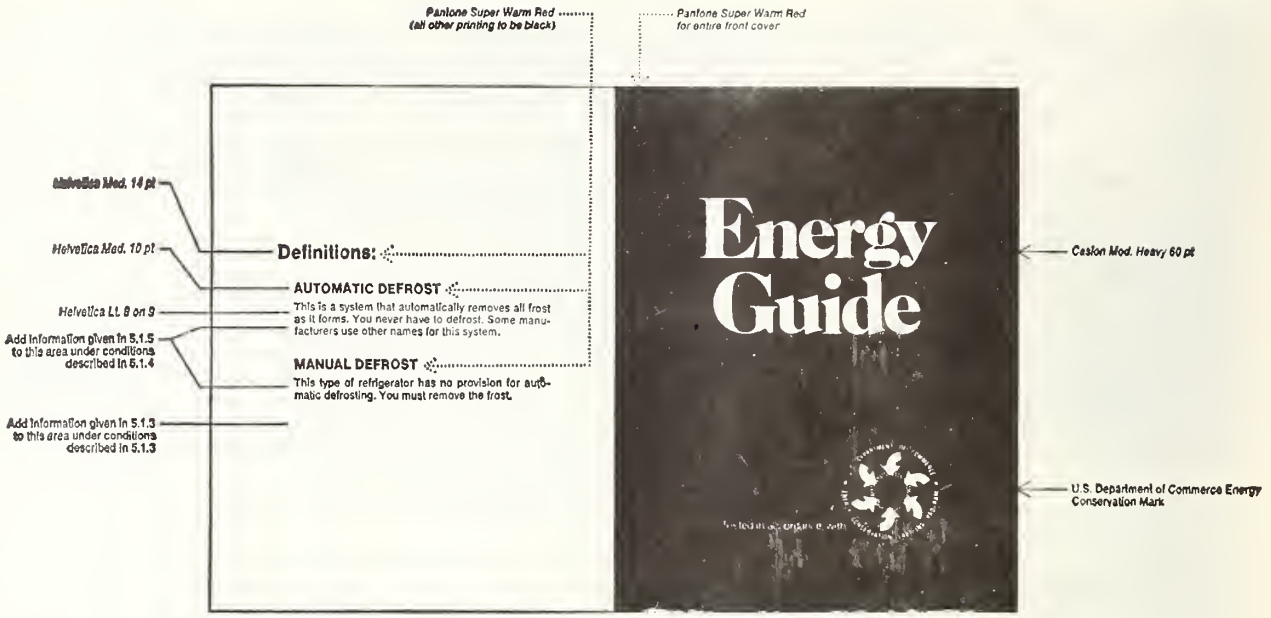


FIGURE 2
Freezer

VOLUNTARY ENERGY CONSERVATION SPECIFICATION 4-75, FOR FREEZERS

APPENDIX A: TOTAL REFRIGERATED VOLUME, ENERGY CONSUMPTION, AND COST OF OPERATION RANGES

RATED TOTAL REFRIGERATED VOLUME IN CUBIC FEET	RANGES OF TOTAL REFRIGERATED VOLUME IN CUBIC FEET	RANGES OF ENERGY CONSUMPTION IN KILOWATT-HOURS PER MONTH FOR MODELS WITH		RANGES OF COST OF OPERATION IN DOLLARS PER MONTH AT A RATE OF 4¢ PER KILOWATT-HOUR FOR MODELS WITH	
		MANUAL DEFROST	AUTOMATIC DEFROST	MANUAL DEFROST	AUTOMATIC DEFROST
Less than 5.5	Less than 6.0	(To be determined)	(To be determined)	(To be determined)	(To be determined)
5.5 to less than 9.5	5.0 to 10.0				
9.5 to less than 13.5	9.0 to 14.0				
13.5 to less than 17.5	13.0 to 18.0	91† to 180†	121† to 207†	3.60† to 7.20†	4.80† to 8.30†
17.5 to less than 21.5	17.0 to 22.0				
21.5 to less than 25.5	21.0 to 26.0				
25.5 and above	25.0 and above				

Values of energy consumption and cost of operation are determined with anti-sweat heaters fully energized.

†These values are hypothetical and are used for the purpose of example only.

[FR Doc.74-30400 Filed 12-26-74;12:06 pm]

such as refrigerators; freezers; refrigerator/freezers; water heaters; dishwashers; clothes washers; clothes dryers; kitchen ranges and ovens; central air conditioners; and comfort heating equipment.

Proposed specifications outlining how the labeling program applies to each appliance group must be published in the *Federal Register*, with opportunity for comment by all interested parties. These may include Federal, state and local agencies, manufacturers, distributors, retailers, consumers, environmentalists, and others. Final specifications, taking these comments into consideration, are also published in the *Federal Register*.

PROGRAM IDENTIFICATION

This mark identifies appliances of participating manufacturers. It will indicate to purchasers that the particular appliance was tested in accordance with the Energy Conservation Labeling Program. Look for this mark and read the label.

NBS LC1054-1974

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE
COM-215

U.S. DEPARTMENT OF COMMERCE
National Bureau of Standards
Washington, D.C. 20234

OFFICIAL BUSINESS

Penalty for Private Use, $300

ENERGY labeling of household appliances

U.S. DEPARTMENT OF COMMERCE
National Bureau of Standards

The Energy Conservation Labeling Program for Household Appliances and Equipment

ENERGY ---WHO NEEDS IT?

With only 1/17th of the worlds population, our country uses 1/3rd of the world's energy.

Approximately 20 percent of all energy consumed in the United States is used in apartments and single family dwellings. Much of this energy is needed to operate the vast number of appliances found in American homes. These include some 31 million room air conditioners; 70 million refrigerators; 23 million freezers; and 55 million water heaters.

In his energy message of April, 1973, President Nixon directed the Department of Commerce, working with the Council on Environmental Quality and the Environmental Protection Agency, to develop a voluntary system of energy efficiency labeling for home appliances.

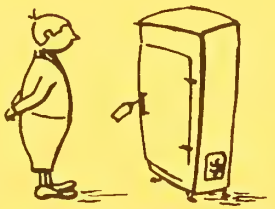
POTENTIAL SAVINGS

The great potential for saving energy by increasing appliance effiencies is indicated by the large sales volumes recorded for appliances. In 1973 alone, well over 43 million major appliances were sold throughout the United States.

Just as there are variations in design and purchase price among competing appliances, so there are variations in the amount of energy different appliances require to perform essentially the same task or service. For example, some room air conditioners are more efficient than other competing models - that is, they use less energy than others having the same cooling capacity. Given the large number of appliances in daily use, it is clear that even small increases in efficiency for individual appliances could result in significant energy savings on a nationwide basis.

THE ENERGY CONSERVATION LABELING PROGRAM

The program focuses on household appliances and equipment such as air conditioners that are large energy consumers and that have a relatively wide range of efficiencies. The purpose of the program is twofold:

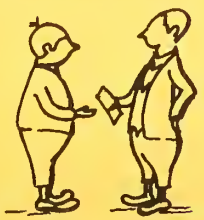


- To encourage manufacturers to provide point-of-sale information on appliance energy use; and
- To encourage consumers to buy the most efficient products that will meet their needs.

Success of the program is dependent upon participation by manufacturers, retailers and consumers.

MANUFACTURERS. Participating manufacturers will label their products to indicate their energy consumption, and their relative efficiency in comparison with other directly competitive models. Where practicable, energy cost will also appear on the labels. Information appearing on the labels is supplied by the manufacturer.

RETAILERS. Retailers will be encouraged to cooperate by making information on the program and on energy label use available in advertising and at the point of purchase. In some cases display material and booklets will be available for the retailers' use.



CONSUMERS. By actually using the information on the label, and by showing preference for the more efficient appliance models, consumers can also encourage manufacturers to compete in production of more efficient products.

THE FEDERAL ROLE

The Federal role in this program is to provide operating guidelines and technical information where needed, and to monitor for manufacturer's compliance with established procedures. The Federal Government is sponsoring a public information effort, in cooperation with appropriate trade associations, designed to call the consumer's attention to the energy label, and to encourage use of the label.

The Federal Government is also responsible for evaluating the overall effectiveness of the labeling program. The National Bureau of Standards, U.S. Department of Commerce, serves as the technical support agency for the program.

STATE AND LOCAL COORDINATION

To be effective, an energy labeling program must be national in scope. However, many state and local units of government are concerned with providing consumer information in the home appliance field.

In order to promote uniformity of energy labeling active channels of communication are maintained between officials representing the Federal interest in the Energy Conservation Labeling Program, and appropriate state and local agencies. Specifically, state and local governments are encouraged to use and promote the Federal Program in lieu of developing their own labeling programs having more limited regional or local effect.

Detailed procedures for administering the program, and for participation by manufacturers, were published in the October 26, 1973, *Federal Register.* Copies of this public notice and other information about the labeling program may be obtained from the National Bureau of Standards, Division 411.00, Washington, D.C. 20234.

APPLIANCES COVERED UNDER THE LABELING PROGRAM

Room air conditioners were chosen as the first appliance group to be labeled with energy efficiency information. Ultimately, labels will appear on such other energy-intensive appliances

Energy Efficiency in Room Air Conditioners

LC 1053

U.S. DEPARTMENT OF COMMERCE
National Bureau of Standards

CHOOSING A ROOM AIR CONDITIONER

Although we usually think of air conditioners as appliances designed to cool air, they can actually increase comfort in more ways than that. They also dehumidify, clean, and circulate air in enclosed rooms, and some models can be used for ventilating or for heating rooms in cooler weather.

In order to enjoy the full benefits of air conditioning it is important to choose the right air conditioner for the room in which it will be installed. A wrong choice can mean less than optimum comfort, and can also cost you money — both in initial purchase price, and in higher operating cost.

THINGS TO KNOW . . . BEFORE YOU BUY

Window and Through-Wall Models

Room air conditioners come in a number of styles, depending upon whether they are to be mounted in sash or casement windows or through a wall. Some models are sold with adapters and can be mounted several ways.

In some areas building regulations require that air conditioners must not project more than a certain distance from the walls of a building. If such rules apply in your area, your dealer can show you models designed with a minimum of overhang. Similarly, some room air conditioners can be installed so that the front is nearly flush with the inside windowsill. You may consider this type desirable since it permits you to pull drapes across the unit when it is not in operation.

When you shop for a window model, be able to describe your window style to the salesman and to give its dimensions.

Household Wiring

Most homes use 115-volt, 15-ampere branch circuits for lighting and small appliances. Many air conditioners are designed to be simply plugged into the outlets of these circuits. However, some models require the installation of a separate circuit.

A 115-volt unit which draws 7.5 amperes or less can be operated on a 15-ampere circuit, provided the other loading on this same circuit does not exceed 7.5 amperes. An air conditioner that draws up to 12 amperes may be operated on a 15-ampere circuit, but it must be the only load on that circuit. A special circuit must be installed for any 115-volt air conditioner that requires more than 12 amperes, or for any 230-volt unit.

If you have any question concerning whether your present wiring is adequate, it is best to ask your electrician or public utility representative.

Cooling Capacity

In choosing the proper room air conditioner to satisfy your needs, it is important to determine the amount of cooling capacity needed. If the cooling capacity of a room air conditioner is too small for the room where you plan to use it, it will not do an adequate job of cooling and dehumidifying. If it is too large for the room, it may be more expensive to purchase and it may not dehumidify properly.

The cooling capacity of air conditioners is rated in Btu (British thermal units) per hour. This rating indicates the amount of heat an air conditioner will remove from the air each hour under specified test conditions. One Btu represents about the amount of heat produced by the burning of a wooden kitchen match to ashes. A room air conditioner with a cooling capacity of 5,000 Btu per hour would remove approximately 5,000 Btu of heat from a room each hour.

ESTIMATING THE COOLING CAPACITY YOU NEED.

Your dealer can usually help you estimate what room air conditioner cooling capacity you need to cool and dehumidify a given room. However, for those who want to make their own estimate, a method developed by the Association of Home Appliance Manufacturers (AHAM) can be of assistance. Here is how the AHAM method works:

1 Determine the floor area in square feet of the room to be cooled by multiplying its length by its width.

2 Along the left side of the adjacent "Cooling Load Chart" find the point corresponding to the room area. Then move horizontally to the right to the center of Band A, B or C, depending on what kind of space is above the room to be cooled:

Band A — Occupied room above room to be cooled.

Band B — Insulated ceiling and unoccupied attic above room to be cooled.

Band C — Uninsulated ceiling and unoccupied attic above room to be cooled.

3 From the center of the band, move horizontally within the band — to the left for a northern or shady exposure and to the right for a sunny exposure.

4 From this point move straight down to the bottom of the chart to determine the unadjusted cooling capacity in Btu per hour.

5 Locate your geographical area on the map and determine the climate factor for your area. Multiply the answer to Item No. 4 by the climate factor.

6 If the room is to be cooled primarily at night and daytime temperature is not very important, multiply the answer to Item No. 5 by 0.7.

7 Determine the number of linear feet of wall separating the room to be cooled from other cooled rooms. Multiply this number by 30 Btu per hour and subtract the result from the answer to Item No. 5 (or Item No. 6 for night use).

8 If only one person will usually occupy the cooled room, subtract 600 Btu per hour from the answer to Item No. 7. If more than two people will usually occupy the room, add 600 Btu per hour for each person over two.

9 Add 4,000 Btu per hour to the answer to Item No. 8 if the area to be cooled includes a kitchen.

The answer indicates the recommended cooling capacity of an air conditioner suitable for that room.

EXAMPLE

As an example of how to use the chart, consider the problem of choosing a room air conditioner for this room:

12 feet x 15 feet combined kitchen-dining area. An occupied room is above the kitchen. Northern exposure, with one 16 ft. wall adjoining another cooled room. Normally occupied by one person during meal preparation. Located in Dallas, Texas.

1) The floor area is 12 feet x 15 feet = 180 square feet.

2) Find 180 on left side of chart and move horizontally over to center of Band A, since there is occupied space above the kitchen.

3) Move horizontally to left of Band A because room has a northern exposure.

4) From the left edge of Band A move straight down to bottom of chart and see that the unadjusted cooling capacity is 4,700 Btu per hour.

5) Since Dallas, Texas has a climate factor of 1.05, multiply this by the answer to Item No. 4:
1.05 x 4,700 = 4,935 Btu per hour

6) Since the kitchen is to be cooled in the daytime, skip Item No. 6.

7) Since one kitchen wall adjoins another cooled room, multiply the length of that wall by 30 Btu per hour and subtract this from the answer to Item No. 5:
15 x 30 = 450 Btu per hour
4,935 - 450 = 4,485 Btu per hour

8) Since there will normally be only one person in the kitchen during the peak heat load (during food preparation), subtract 600 Btu from the answer to Item No. 7:
4,485 - 600 = 3,885 Btu per hour

9) Since the room is a kitchen, add 4,000 Btu per hour to the answer to Item No. 8.
3,885 + 4,000 = 7,885 Btu per hour

The required cooling capacity for the kitchen is about 8,000 Btu per hour. Models having cooling capacities between about 7,500 and 8,500 Btu per hour would be suitable for this application.

The Energy Guide Label appearing on room air conditioners states the power requirement of the unit, in watts. This figure was obtained by measuring the unit's performance under standard test conditions. Electric service rates are based on the kilowatt-hour, which represents the usage of 1,000 watts of electrical power in one hour. The kilowatt-hours of electricity that a room air conditioner will use in a season can be calculated by multiplying the wattage rating of an appliance times the number of hours usage per season (from Table I) and dividing by 1,000.

Your electric service rate depends on the rate structure of your local utility company and the amount of electricity you use. For consumers using between 500 and 1,000 kilowatt-hours of electricity per month, U.S. rates in a recent year varied from about 1¢ to 6¢ per kilowatt-hour, with the national average rate being about 2.2¢ per kilowatt-hour. You can find out what your rate is by asking your local utility company.

You can estimate the cost of electricity to operate a room air conditioner in your home for one season by using the following formula:

$$\text{cost} = \begin{pmatrix}\text{your}\\ \text{electric}\\ \text{rate}\end{pmatrix} \times \begin{pmatrix}\text{hours}\\ \text{operation}\\ \text{per season}\end{pmatrix} \times \frac{\text{wattage rating}}{1{,}000}$$

For example, if you live in an area having a climate similar to that of Dallas, Texas, Table 1 indicates that if you are an average user, you may operate your room air conditioner about 1,400 hours per season. If your electric service rate is 3¢ ($.03) per kilowatt-hour, and the wattage rating of the room air conditioner you have selected is 860 watts, your estimated cost for electricity will be:

$$\text{Cost} = .03 \times 1{,}400 \times \frac{860}{1{,}000} = \$36.12 \text{ per season}$$

Of course, many people do not fit the average use pattern. If you use your air conditioner only at night, you will operate it fewer hours and at lower outdoor temperatures, and your cost will be less. If you try to maintain an unusually low indoor temperature throughout the day, your cost will be greater. The higher you set the air conditioner's thermostat, the less time the unit will run and the lower your operating cost will be. Most people are comfortable at temperatures up to 80° F.

Relating Cost of Electricity and Purchase Price

This method for estimating the cost of electricity to operate a room air conditioner can also be used to estimate whether it is worthwhile, from the viewpoint of economy, to purchase a more efficient model with an initial cost that may be appreciably more than a less efficient model. For example, assume that a relatively inefficient model is available on the market, and that it is priced $60.00 lower than the model used in the example above.

The ratings of the two models are as follows:

	More Efficient Model	Less Efficient Model
Btu per hour cooling capacity	8,000	8,000
Power requirement, watts	860	1,380
Energy Efficiency Ratio (EER)	9.3	5.8
Estimated hours operation per season	1,400	1,400
Estimated cost of electricity per season	$36.12	$57.96

Based on these ratings, the estimated cost of electricity would be $21.84 per year lower for the more efficient model. Put another way, if the more efficient model were priced $60 higher than the less efficient one, the higher price would be made up within three years by savings in the cost of electricity.

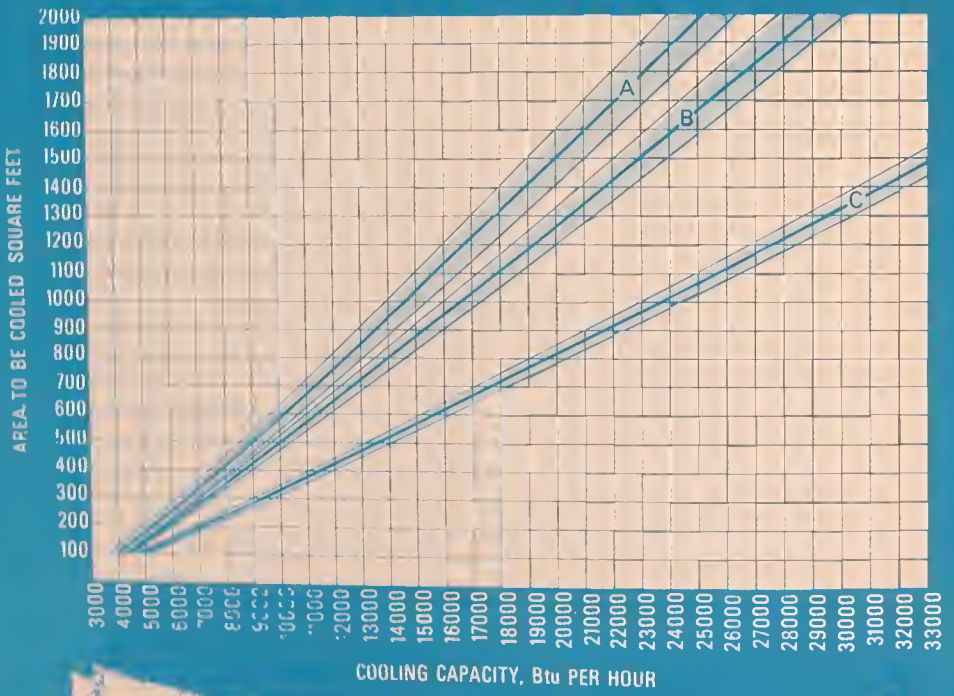
MAINTAINING EFFICIENCY

Once you have chosen the right air conditioner there are a number of things you can do to keep it operating efficiently. These are usually described in an owner's booklet. Read — and follow — the instructions that come with your room air conditioner.

1974

◎ If only one person will usually occupy the cooled

COOLING LOAD CHART FOR ROOM AIR CONDITIONERS



ROOM AIR CONDITIONER EFFICIENCY

Once you have determined the amount of cooling capacity you need for a given room, it is possible to judge how well different models of the same cooling capacity perform. This can be done by comparing the Energy Efficiency Ratio (EER) of various models.

The EER is a measure of the amount of cooling a room air conditioner can do relative to the amount of electricity it uses. Air conditioners with the same cooling capacity (as measured in Btu per hour) may vary greatly in efficiency. That is, some use much more electricity to achieve the same cooling and dehumidifying than others.

The EER is determined by dividing the Btu per hour rating of a room air conditioner by the watts (power) it uses. Air conditioners with higher EER ratings are relatively more efficient and those with lower EER's are less efficient. For a given cooling capacity, the more efficient models consume less electricity and are less costly to operate.

Department of Commerce Energy Guide Labels can help you compare energy efficiency among competing models. As shown in the illustration, the labels indicate the EER of the unit to which they are attached and the EER range for all room air conditioners having about the same cooling capcity.

Cost of Electricity

The cost of electricity to operate your room air conditioner for a season depends on the climate you live in, the power requirement of your air conditioner, the cost of electric service in your area, and such factors as the time of day and how frequently you leave the unit on and at what control settings.

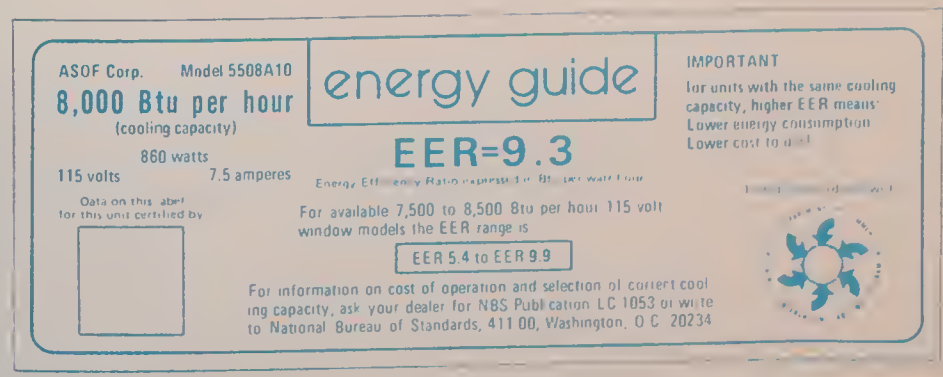
Climate determines the number of hours each season you would have to operate your air conditioner to obtain the temperature reduction and dehumidification needed for comfort. The average yearly operation in some representative U.S. Cities is shown below.

Table I

Estimated Annual Hours of Operation for Properly Sized Equipment in Typical Cities during Normal Cooling Season*

CITY	Hours per Season	CITY	Hours per Season
Atlanta, Ga.	750	Jacksonville, Fla.	1,600
Boston, Mass.	200	Minneapolis, Minn.	350
Chicago, Ill.	400	New Orleans, La.	1,500
Cleveland, Ohio	450	New York, N.Y.	350
Dallas, Texas	1,400	St. Louis, Mo.	1,000
Fresno, Calif.	900	Washington, D.C.	800

* From ASHRAE Guide and Data Book — Systems — 1971. Published by American Society of Heating, Refrigerating and Air Conditioning Engineers, New York



Energy Efficiency in Room Air Conditioners

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ROOM AIR CONDITIONERS

Admiral Group, Rockwell International Corporation
Airtemp Division, Chrysler Corporation
Amana Refrigeration, Inc., Raytheon Company, Division of
Carrier Air Conditioning Co., Carrier Corporation, Division of
Dearborn Stove Company, Addison Products Company, Division of
Emerson Quiet Kool Company, National Union Electric Corporation, Div. of
Fedders Corporation
Friedrich Refrigerators Inc., Crutcher Resources Corp., Subsidiary of
Frigidaire, General Motors, Division of
General Electric Company, Major Appliance Business Group
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Grant and Company, W. T.
Heat Controller, Inc.
Kelvinator Appliance Company, White Consolidated Industries, Division of
McGraw-Edison Company, Air Comfort Division
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15. SUPPLEMENTARY NOTES

16. ABSTRACT *(A 200-word or less factual summary of most significant information. If document includes a significant bibliography or literature survey, mention it here.)*

The Voluntary Labeling Program for Household Appliances and Equipment to Effect Energy Conservation was established in response to an April 18, 1973 Presidential directive. Final procedures for the program became effective October 26, 1973. Only major energy consuming household appliances and equipment are covered. Purposes of the program are to encourage manufacturers to place energy efficiency labels on their appliances and to encourage consumers to utilize this information in making purchase decisions.

Specifications containing labeling requirements for each type of product are developed by NBS with assistance from consumers, retailers, manufacturers and interested Federal agencies. During the first full year of program operation, final specifications for labeling room air conditioners and proposed specifications for labeling refrigerators, combination refrigerator-freezers, and freezers were issued. Two consumer information pamphlets were published and other consumer information and education activities were undertaken. Labeling specifications for water heaters, clothes washers and dryers, and ranges and ovens were under development. This was accomplished, with assistance from manufacturers, retailers, consumers and other agencies, by a staff of six funded at a level of $375,000 per year.

At year's end, twenty-four room air conditioner manufacturers and private brand labelers, representing an estimated 95% of U.S. sales of this appliance, were participating in the program.

17. KEY WORDS *(six to twelve entries; alphabetical order; capitalize only the first letter of the first key word unless a proper name; separated by semicolons)*
Consumer information; consumer products; energy conservation; energy efficiency; energy use; household appliances; household equipment; labeling; residential

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